

Founded in 1929 by John Dewey and Carl Murchison

THE JOURNAL OF SOCIAL PSYCHOLOGY

CARL MURCHISON

FLOYD H. ALLPORT
Syracuse University

ERNEST BEAGLEHOLE
Victoria University Col-
lege, New Zealand

S. BIESHEUVEL
National Institute for
Personnel Research,
Johannesburg

HAROLD E. BURTT
Ohio State University

DORWIN CARTWRIGHT
University of Michigan

RAYMOND B. CATTELL
University of Illinois

KAMLA CHOWDHRY
Ahmedabad Textile Indus.
Res. Assoc., India

RICHARD S. CRUTCHFIELD
University of California

LEONARD W. DOOB
Yale University

A. H. EL-KOUSSY
Ein Shams University

OTTO KLINEBERG
Columbia University

I. D. MACCRONE
University of the
Witwaterstrand

R. B. MACLEOD
Cornell University

EMILIO MIRA LOPEY
Rio de Janeiro

GARDNER MURPHY
Menninger Foundation

O. A. OESER
University of Mel-
bourne, Australia

A. T. POFFENBERGER
Columbia University

KALI PRASAD
India International
Centre, New Delhi

E. TERRY PROTHRO
American University of
Beirut, Lebanon

BERTRAND RUSSELL
Petersfield, England

KOJI SATO
Kyoto University

MARSHALL H. SEGALL
State University
of Iowa

SADAJI TAKAGI
Tokyo University

GOODWIN WATSON
Columbia University

KIMBALL YOUNG
Northwestern University

PAUL THOMAS YOUNG
University of Illinois

If this space should be unstamped, this is the regular library edition.
But if this space is stamped with a designating title, this is a special
edition, sold under the restrictions of a bilateral contract, and may not
be resold for a period of five years from date of publication.

VOLUME 60

1963

Copyright, 1963, by The Journal Press

All rights reserved

Published Bimonthly by The Journal Press
Provincetown, Massachusetts, U. S. A.

AUTHOR INDEX

Albert, Robert S.	153	Mayer, David 221
Alberts, William E.	171	Medinnus, Gene R. 101
Banta, Thomas J.	115	Misra, S. K. 311
Beilin, Harry	39	O'Shea, Harriet E. 157
Bendig, A. W.	107	Piskowski, Dorothy 221
Borgatta, Edgar F.	89, 319	Prentice, Norman M. 325
Borgatta, Marie L.	319	Proshansky, Harold M. 139
Calabria, Frank M.	57	Rambo, William W. 251
Centers, Richard	339, 343	Rath, R. 311
Chambliss, Rollin	213	Roberts, John M. 15
Clark, Walter Houston	172	Roy, Biswanath 195
Engel, Gerald	157	Simon, Walter B. 187
Eron, Leonard D.	115	Singer, Evelyne Pape 3
Gladstone, Roy	203	Sutton-Smith, Brian 15
Greenberg, Herbert	221	Stimson, John 89
Guerino, Rosemarie	221	Terebinski, S. J. 85
Guedes, Hilda de Almeida	9	Tzuo, Huan-Yuan 175
Gupta, G. C.	203	Walder, Leopold O. 115
Horowitz, Miriam	343	Weissberg, Norman C. 139
Jensen, B. T.	85	Welsand, Eugene 293
Kavolis, Vytautas	31	Whitelam, Peter 153
Kelly, Francis J.	327	Williams, Carl D. 289
Knapp, Robert H.	255	Williston, George C. 263
Kozelka, Robert M.	15	Winick, Charles 301
Lashen, Marilyn	221	Wu, Ching-Yi 175
Lindgren, Henry Clay	3, 9	Wulff, Alan 255
Luchins, Abraham S.	231, 273	Yang, Kuo-Shu 175
Luchins, Edith H.	231, 273	Zolik, Edwin S. 293
MacKinnon, William J.	339	

TABLE OF CONTENTS

Correlates of Brazilian and North American attitudes toward child-centered practices in education	3
BY HENRY CLAY LINDGREN AND EVELYNE PAPE SINGER	
Social status, intelligence, and educational achievement among elementary and secondary students in São Paulo, Brazil	9
BY HENRY CLAY LINDGREN AND HILDA DE ALMEIDA GUEDES	
Game involvement in adults	15
BY BRIAN SUTTON-SMITH, JOHN M. ROBERTS, AND ROBERT M. KOZELKA	
A role theory of artistic interest	31
BY VYTAUTAS KAVOLIS	
Impression formation under varied set and stimulus-trait conditions	39
BY HARRY BEILIN	
Experimentally induced psyche- and socio-process in small groups	57
BY FRANK M. CALABRIA	
Personality and attitudes toward juvenile delinquency: A study of Protestant ministers	71
BY WILLIAM E. ALBERTS	
"The railroad game": A tool for research in social sciences	85
BY B. T. JENSEN AND S. J. TEREbinski	
Sex differences in interaction characteristics	89
BY EDGAR F. BORCATTa AND JOHN STIMSON	
The relation between parental prescriptions for child and parent roles	101
BY GENE R. MEDINNUs	
A note on Cattell's Radicalism (Q_1) scale	107
BY A. W. BENDIG	
Convergent and discriminant validation of a child-rearing survey questionnaire	115
BY THOMAS J. BANTA, LEOPOLD O. WALDER, AND LEONARD D. ERON	
Religion as a response to the search for meaning: Its relation to skepticism and creativity	127
BY WALTER HOUSTON CLARK	
The Jewish anti-Semite's perceptions of fellow Jews	139
BY NORMAN C. WEISSBERG AND HAROLD M. PROSHANSKY	
The rôle of the critic in mass communications: II. The critic speaks	153
BY ROBERT S. ALBERT AND PETER WHITELAM	
Teaching Democratic values: A study of the effect of prejudice upon learning	157
BY GERALD ENGEL AND HARRIET E. O'SHEA	
BOOKS	169
BOOKS RECENTLY PUBLISHED	169
Rorschach responses of normal Chinese adults: II. The popular responses	175
BY KUO-SHU YANG, HUAN-YUAN TZUO, AND CHING-YI WU	

Race relations and class structures	187
By WALTER B. SIMON	
A cross-cultural study of persons within the industrial belt of Calcutta . .	195
By BISWANATH ROY	
A cross-cultural study of the behavioral aspects of the concept of religion .	203
By ROY GLADSTONE AND G. C. GUPTA	
Mead's way out of the basic dilemma in modern existential thought . . .	213
By ROLLIN CHAMBLISS	
Order of birth as a determinant of personality and attitudinal characteristics .	221
By HERBERT GREENBERG, ROSEMARIE GUERINO, MARILYN LASHEN, DAVID MAYER, AND DOROTHY PISKOWSKI	
Social influences on judgments of descriptions of people	231
By ABRAHAM S. LUCHINS AND EDITH H. LUCHINS	
The distribution of successive interval judgments of attitude statements: A note	251
By WILLIAM W. RAMBO	
Preferences for abstract and representational art	255
By ROBERT H. KNAPP AND ALAN WULF	
The foster-parent role	263
By GEORGE C. WILLISTON	
Focusing on the object of judgment in the social situation	273
By ABRAHAM S. LUCHINS AND EDITH H. LUCHINS	
Authoritarianism and student reaction to airplane hijacking	289
By CARL D. WILLIAMS	
Changes in parental attitudes as a function of anxiety and authoritarianism .	293
By EDWIN S. ZOLIK AND EUGENE WELSAND	
Trends in the occupations of celebrities: A study of newsmagazine profiles and television interviews	301
By CHARLES WINICK	
Change of attitudes as a function of some personality factors	311
By R. RATH AND S. K. MISRA	
Coalitions in three-person groups	319
By MARIE L. BORGATTA AND EDGAR F. BORGATTA	
Intelligence and delinquency: A reconsideration	327
By NORMAN M. PRENTICE AND FRANCIS J. KELLY	
Some aspects of opinions and personality	339
By WILLIAM J. MACKINNON AND RICHARD CENTERS	
Social character and conformity: A differential in susceptibility to social influence	343
By RICHARD CENTERS AND MIRIAM HOROWITZ	
BOOKS	351
BOOKS RECENTLY PUBLISHED	351

\$30.00 per year
\$15.00 per volume
Single Numbers \$7.50

BIMONTHLY
Three volumes per year

June, 1963
Volume 60, First Half

Founded in 1929 by John Dewey and Carl Murchison

THE JOURNAL OF SOCIAL PSYCHOLOGY

If this space should be unstamped, this is the regular library edition. But if this space is stamped with a designating title, this is a special edition, sold

under the restrictions of a bilateral contract, and may not be resold for a period of five years from the date of publication.

JUNE, 1963

(Manuscripts are printed in the order of final acceptance)

- Correlates of Brazilian and North American attitudes toward child-centered practices in education 3
BY HENRY CLAY LINDGREN AND EVELYNE PAPE SINGER
- Social status, intelligence, and educational achievement among elementary and secondary students in São Paulo, Brazil 9
BY HENRY CLAY LINDGREN AND HILDA DE ALMEIDA GUEDES
- Game involvement in adults 15
BY BRIAN SUTTON-SMITH, JOHN M. ROBERTS, AND ROBERT M. KOZELKA
- A role theory of artistic interest 31
BY VYTAUTAS KAVOLIS
- Impression formation under varied set and stimulus-trait conditions . . . 39
BY HARRY BEILIN
- Experimentally induced psyche- and socio-process in small groups . . . 57
BY FRANK M. CALABRIA

(OVER)

Copyright, 1963, by The Journal Press
Provincetown, Massachusetts, U. S. A.

Entered as second-class matter April 15, 1937, at the post-office at
Provincetown, Mass., under the Act of March 3, 1879
Second-class postage paid at Provincetown, Mass.

Personality and attitudes toward juvenile delinquency: A study of Protestant ministers	71
BY WILLIAM E. ALBERTS	
"The railroad game": A tool for research in social sciences	85
BY B. T. JENSEN AND S. J. TEREBINSKI	
Sex differences in interaction characteristics	89
BY EDGAR F. BORGATTA AND JOHN STIMSON	
The relation between parental prescriptions for child and parent roles	101
BY GENE R. MEDINNUS	
A note on Cattell's Radicalism (Q_1) scale	107
BY A. W. BENDIG	
Convergent and discriminant validation of a child-rearing survey questionnaire	115
BY THOMAS J. BANTA, LEOPOLD O. WALDER, AND LEONARD D. ERON	
Religion as a response to the search for meaning: Its relation to skepticism and creativity	127
BY WALTER HOUSTON CLARK	
The Jewish anti-Semite's perceptions of fellow Jews	139
BY NORMAN C. WEISSBERG AND HAROLD M. PROSHANSKY	
The rôle of the critic in mass communications: II. The critic speaks	153
BY ROBERT S. ALBERT AND PETER WHITELAM	
Teaching Democratic values: A study of the effect of prejudice upon learning	157
BY GERALD ENGEL AND HARRIET E. O'SHEA	
BOOKS	169
BOOKS RECENTLY PUBLISHED	169

CORRELATES OF BRAZILIAN AND NORTH AMERICAN ATTITUDES TOWARD CHILD-CENTERED PRACTICES IN EDUCATION*¹

*San Francisco State College and Regional Center for Educational Research,
São Paulo, Brazil*

HENRY CLAY LINDGREN AND EVELYNE PAPE SINGER

A. INTRODUCTION

There is, in the United States today, a great deal of criticism of educational practices that are consistent in any way with the practices recommended by the proponents of "progressive" or "child-centered" education. Such practices have a distinct democratic or equalitarian flavor, in the sense that they are aimed at giving the individual child more rights and at reducing the status differential between teachers and students. Such practices also differ with traditional points of view on issues regarding teaching methods and curriculum.

It is therefore hardly surprising that much of the criticism of child-centered practices in education comes from persons with a conservative or a right-wing point of view. What is surprising is that much of the criticism also comes from individuals who publicly espouse liberal points of view. It is not at all unusual to encounter university professors, for example, who favor liberal and democratic solutions to political and social problems, but traditional and authoritarian solutions to educational problems. This apparent inconsistency could be explained if it were shown that attitudes toward political and social problems were independent of attitudes toward educational problems.

In order to examine this question of attitude consistency more fully, the senior author undertook a study of an unselected, nonacademic North American sample (4). The results showed that attitudes toward political and social issues and educational problems did tend to be consistent, as demonstrated by negative correlations between *F*-scale items scored in the authoritarian direction and a questionnaire of attitudes toward educational practices, scored in the child-centered direction. The results do not explain the incon-

* Received in the Editorial Office on November 19, 1962, and published immediately in accordance with our policy of special consideration for cross-cultural research.

¹ The authors would like to acknowledge the assistance of Fredrica Lindgren, who helped score the questionnaires and analyze the data.

sistency in the attitudes of liberals toward politico-social and educational issues, but they do suggest that the inconsistency is a real one.

A second area of interest concerns the relationship between attitudes toward child-centered practices in education and independence of judgment. Some critics of modern education have suggested that persons who are favorably disposed toward child-centered educational practices are victims of conformist tendencies and that opposing such practices requires independence, as well as forthrightness. The senior author's research shows, however, that attitudes favorable to child-centered educational practices were consistent with attitudes characterized by independence of judgment, rather than vice versa, as such critics suggested (3, 4).

B. HYPOTHESIS

The present research was conducted for the purpose of determining whether relationships demonstrated in the research described above were specific to the populations studied in the United States or whether they were characteristic of other populations as well. In other words, if results similar to those found in the United States would be encountered in a different culture—say Brazil—such finding might be considered as evidence that the positive relationship among attitudes characterized by independence of judgment, a preference for democratic solutions to political and social problems, and a preference for child-centered practices in education is characteristic of human behavior in general.

C. PROCEDURE

1. Scales

The following scales were translated into Portuguese by the junior author:

1. A 50-item questionnaire of attitudes toward various practices in education, first used in a study comparing attitudes of elementary and secondary teachers (5). This scale had also been used in one of the studies previously cited (4) and in an abbreviated form in the other (3), and is scored in a direction favorable to child-centered practices in education.

2. A 22-item questionnaire composed of items found by Barron (2) to discriminate at the .05 level or better between "independents" [those whose judgments did not conform to the incorrect majorities in the situational tests devised by Asch (1)] and "yielders" (those whose judgments always conformed). This questionnaire had been cross-validated by Tuddenham (6), who found that it discriminated between independents and yielders for men (but not for women). It had also been used in the research by the senior

author, cited above, as a measure of attitudes characterized by independence of judgment. It is scored in the direction of "independence."

3. A 30-item version of the *F*-scale, scored in the authoritarian direction.

2. Subjects

The three scales were administered to two Brazilian samples:

1. Fifty-eight teachers and advanced students in education enrolled in an advanced course in educational research or in a course in audio-visual techniques at the Regional Center for Educational Research in São Paulo. The age of this mostly female group ranged from 22 to 53, with a mean of 33.04 years and a standard deviation of 8.02. The number of years of education completed by this group ranged from eight to 20, with a mean of 14.25 and a standard deviation of 2.89. *F*-scale scores for this group ranged from -83 to 57, with a mean of 1.5 and a standard deviation of 28.2.

2. Fifty-two second year medical students at the Escola Paulista de Medicina, São Paulo. The age of this mostly male group ranged from 19 to 27, with a mean of 22.26 years and a standard deviation of 1.18. The number of years of education completed by this group ranged from 12 to 15, with a mean of 12.89 and a standard deviation of .98. *F*-scale scores for this group ranged from -46 to 48, with a mean of 1.3 and a standard deviation of 26.7.

The corrected split-half reliability of scale of attitudes toward child-centered practices in education was .99, and that of the *F*-scale was .82. The 22-item scale measuring attitudes characterized by independence of judgment had a corrected split-half reliability of only .45, but the test-retest method gave it a reliability of .62.

D. RESULTS

Pearson product-moment correlations were calculated between the scores on the three tests. The results are presented in Tables 1 and 2, where they are compared with the results of the two studies previously carried out by the senior author (3, 4). Relationships among the three questionnaires are consistent with those reported for the United States groups. Inasmuch as the findings of the previous studies, namely, that attitudes characterized by independence of judgment tend to be positively related to attitudes favoring child-centered practices in education, and that both of these attitudes tend to be negatively related to authoritarian attitudes, are applicable to Brazilian as well as to United States population, it would appear that they may apply to other cultural groups as well.

TABLE 1
CORRELATIONS AMONG ATTITUDES CHARACTERIZED BY ACCEPTANCE OF CHILD-CENTERED PRACTICES IN EDUCATION, AUTHORITARIANISM, AND INDEPENDENCE OF JUDGMENT FOR 52 BRAZILIAN TEACHERS AND GRADUATE STUDENTS IN EDUCATION (MOSTLY WOMEN), 69 UNSELECTED UNITED STATES WOMEN, AND 138 UNITED STATES COLLEGE WOMEN

	Authoritarianism		Independence		
	Brazil	US ^a	Brazil	US ^a	US ^b
Child-centeredness in education	— .29*	— .51***	.19	.57***	.39***
Authoritarianism (<i>F</i> -scale)	—	—	— .57***	— .59***	—

* $p < .05$.

** $p < .01$.

*** $p < .001$.

^a Sample of Laundromat customers used by Lindgren (4).

^b Sample of college students used by Lindgren (3). Data on this sample consist only of scores based on the child-centeredness and independence scales.

TABLE 2
CORRELATIONS AMONG ATTITUDES CHARACTERIZED BY ACCEPTANCE OF CHILD-CENTERED PRACTICES IN EDUCATION, AUTHORITARIANISM, AND INDEPENDENCE OF JUDGMENT FOR 52 BRAZILIAN MEDICAL STUDENTS (MOSTLY MEN), 81 UNSELECTED UNITED STATES MEN, AND 82 UNITED STATES COLLEGE MEN

	Authoritarianism		Independence		
	Brazil	US ^a	US ^a	US ^b	
Child-centeredness in education	— .47**	— .31**	.32**	.36**	.21
Authoritarianism (<i>F</i> -scale)	—	—	— .35***	— .29**	—

* $p < .05$.

** $p < .01$.

*** $p < .001$.

^a Sample of Laundromat customers used by Lindgren (4).

^b Sample of college students used by Lindgren (3). Data on this sample consist only of scores based on the child-centeredness and independence scales.

E. SUMMARY

A questionnaire measuring attitudes favorable toward modern or child-centered practices in education, a scale measuring attitudes consistent with independence of judgment, and a version of the *F*-scale were translated into Portuguese and administered to two Brazilian samples: a group of teachers and education students (mostly women) and a group of second year medical students (mostly men). Results confirmed previous findings in the United States, in that attitudes favorable toward child-centered or modern methods in education were positively correlated with attitudes consistent with independence of judgment, and that both of these were negatively correlated with authoritarian attitudes, measured by the *F*-scale.

REFERENCES

1. ASCH, S. E. Studies of independence and submission to group pressures: 1. A minority of one against a unanimous majority. *Psychol. Monog.*, 1956, **70**, No. 9 (Whole No. 416).
2. BARRON, F. Some personality correlates of independence of judgment. *J. Personal.*, 1953, **21**, 287-297.
3. LINDGREN, H. C. Correlates of attitudes toward child-centered practices in education. *Psychol. Rep.*, 1961, **9**, 440.
4. ———. Authoritarianism, independence, and child-centered practices in education: A study of attitudes. *Psychol. Rep.*, 1962, **10**, 747-750.
5. LINDGREN, H. C., & PATTON, G. M. Attitudes of high school and other teachers toward children and current educational methodology. *Calif. J. Educ. Res.*, 1958, **9**, 80-85.
6. TUDDENHAM, R. D. Correlates of yielding to a distorted group norm. *J. Personal.*, 1959, **27**, 272-284.

1975 15th Avenue
San Francisco, California

R24, No. 35
Goiânia, Brazil

SOCIAL STATUS, INTELLIGENCE, AND EDUCATIONAL ACHIEVEMENT AMONG ELEMENTARY AND SEC- ONDARY STUDENTS IN SAO PAULO, BRAZIL.*

*San Francisco State College and Regional Center for Educational Research,
São Paulo, Brazil*

HENRY CLAY LINDGREN AND HILDA DE ALMEIDA GUEDES

A. INTRODUCTION

Between March and December, 1962, UNESCO and the Brazilian Institute of Pedagogical Studies collaborated in conducting a seminar devoted to the training of educational research workers at the Regional Center for Educational Research at São Paulo. The staff of the seminar consisted of experts in the fields of educational administration, educational sociology, educational psychology, and tests and measurements. The research reported in this paper is based on data gathered by students participating in the educational psychology-tests and measurements sector of the seminar.¹ As part of their work in this seminar, students were given the assignment of studying children in three nearby schools for the purpose of determining whether a relationship existed among the following variables: educational level of parents, sociometric status, intelligence test scores, and school marks. Research with school children in the United States rather routinely shows positive correlations among these variables (3, 5). It was hypothesized that positive correlations among these variables would obtain for Brazilian school children as well.

B. PROCEDURE

The elementary groups selected for the study consisted of two classes of fourth year elementary pupils in the Alberto Torres elementary school, located near the Regional Center for Educational Research, and one class of fourth year pupils from the Experimental School, located in the Center

* Received in the Editorial Office on November 19, 1962, and published immediately in accordance with our policy of special consideration for cross-cultural research.

¹ Special thanks are due to the following participants in the seminar who constructed, administered and scored the tests used in this study: Ana Gláucia S. Vilar, Augusta Miranda Silva, Carmen M. Lacerda, Carmen Pedroza Cunha, Eduardo Diatay Bezerra Menezes, Evelyn Pape Singer, Itália Zaccaro Faraco, Laura Vasconcelos Guimarães, Léa Martins, Maria de Glória Oliveira Resende, Maria Jorgiza Mello, Maria da Penha Carvalho, Marília Diniz Bambirra, Nadir Saldanha da Rocha, Nilsa Fadia Calil, Regina B. Espinheira da Costa, Regina Helena V. Silveira.

itself. In all, there were 116 elementary pupils, ranging in age from nine to 14 years, with a mean of 10.7 years and a standard deviation of 1.3.

The secondary students selected for the study consisted of two classes of the third year of ginásio (roughly equivalent to junior high school) of the Colégio de Aplicação (Demonstration School) of the University of São Paulo. In all there were 55 students, ranging in age from 12 to 17 years, with a mean of 14.9 years and a standard deviation of 1.2.

The following types of data were collected by the members of the seminar, using instruments which they themselves had constructed under the supervision and with the help of the authors.

1. Elementary Groups

a. Sociometric status. Each child was asked to indicate the three children in the class that he would prefer to study with, the three he would like to go to the cinema with, and the three he would prefer to play with. Scores were then computed for the children nominated, by giving them a "3" for each time they were named the first of any of the triads of children listed after each question, a "2" if they were listed second, and a "1" if they were listed third. The total score obtained by each child was then divided by the number of children in the class, in order to make the scores from one class comparable with those of other classes. The reliability of this instrument was determined by correlating the scores each child received from half the class with the scores he received from the other half. The obtained reliability was .51.

b. Intellectual status. Two 60-item multiple-choice, paper-and-pencil intelligence tests were prepared, largely verbal in nature. The type of items included synonyms, scrambled sentences, number series, and the identification of inconsistencies. The reliability of these instruments was calculated by correlating scores on one form with scores on the other. The reliabilities thus obtained for the three classes were .66, .71, and .61. The children generally made higher scores on whichever form of the test they took second, because they had never taken an objective test before, and the first form constituted an experience in which they learned how to take this kind of test. Inasmuch as the two forms were presented in different order to the three groups, calculating correlations based on the combined groups would introduce an unnecessary amount of variance. Hence the reliabilities reported separately for the three classes are a better index of the "true" reliability of the test than is the correlation of .52 between the two forms for all classes combined.

c. Social status. Data regarding the educational level of the parents were

secured from school records, which reported the level of schooling attained by each parent. These data were converted to a five-point scale, as follows: 0—illiterate, 1—elementary school, 2—ginásio or the equivalent, 3—colegio (higher secondary school) or the equivalent, 4—university or the equivalent. The ratings of both parents were then summed, thus making a scale with a total possible range of nine points, from 0 to 8.

d. *Educational accomplishment.* The Alberto Torres school assigned monthly grades on a scale running theoretically from 0 to 100 for each of three subjects. These marks were averaged to provide a composite average grade for each student. The Experimental School used adjective descriptions for each child's performance. Hence the correlations with school marks reported in Table 1 refer only to the classes at Alberto Torres.

2. Secondary Groups

a. *Sociometric status.* Each student was given a list of all the members of his class and was asked to rate each of them in terms of how he perceived him as a leader, using a five-point scale, ranging from "5," indicating acceptance as a leader in any kind of situation, to "1," indicating an unwillingness to accept the person as a leader under any circumstances. The reliability of this method was computed by correlating the ratings assigned by half the class with those assigned by the other half of the class. The correlation of .96 thus obtained may seem high, but is consistent with reliabilities obtained by the senior author, using a similar method with students at San Francisco State College (unpublished research).

b. *Intellectual status.* Two 56-item, multiple-choice, paper-and-pencil intelligence tests were prepared, similar to those used in the elementary part of the study, but more advanced. The reliability was computed in the same manner as that of the tests used in the elementary school and yielded correlations of .54 and .73 for the two classes. Secondary school students also used the first form administered as a learning situation. Hence the correlation of .43 for both classes combined likewise is not a fair indication of the reliability of the test. Scores for the Raven and Ballard intelligence tests were available for 25 of the 55 students. Summed scores for both forms of the experimental intelligence test correlated .07 with the Raven and .54 with the Ballard. (The latter two tests were found to correlate .05 and .47, respectively, with school marks.)

c. *Social status.* The same method was used with the secondary students as was used with elementary students.

d. *Educational accomplishment.* School marks for the most recent reporting period for each of seven school subjects were averaged for each student.

C. RESULTS

The results for the elementary school are reported in Table 1. All correlations are positive and significant and thus confirm the hypothesis. It appears that as far as these children are concerned, social background, sociometric status, intelligence, and academic success are positively inter-correlated, just as they are in the United States.

TABLE 1
CORRELATIONS** BETWEEN PARENTS' EDUCATION, SOCIOMETRIC STATUS, INTELLIGENCE TEST SCORES, AND SCHOOL MARKS FOR FOURTH YEAR ELEMENTARY SCHOOL PUPILS IN SÃO PAULO

	Sociometric status	Intelligence ^a	School marks
Educational level of parents	.28	.38	.33
Sociometric status	—	.30	.27
Intelligence ^a	—	—	.61
<i>N</i>	116	116	88

** The correlations in this table are all significant at the .01 level or better.

^a The sum of the scores obtained on both forms of the intelligence test.

The results for the secondary school, reported in Table 2, present a somewhat different picture. Parents' education and intelligence test scores are both positively correlated with school marks, although the correlations with parents' education are not so high as in the elementary school group, and actually fail to reach a satisfactory level of significance. This may be accounted for by the fact that Brazilian secondary schools are highly selective. Even in the highly urbanized and industrialized State of São Paulo, not more than 10 per cent of children of school age enter secondary school. The Colégio de Aplicação also has the reputation of being among the elite of the state-supported secondary schools in the city of São Paulo. Hence the lower correlations among these variables as contrasted with the elementary school, may be accounted for in part by restriction of range to the upper end of the scale of ability. The extent to which this selection operates socioeconomically is shown by the fact that the modal elementary school child in this study had one parent who had some first-level secondary school education and one parent who had some primary schooling, whereas the modal secondary school student had one parent who had some second level secondary school and one parent who had some first-level secondary school. In other words, parents of the secondary school students averaged one educational level above those of the elementary school children. Furthermore, the lowest level of

TABLE 2
CORRELATIONS BETWEEN PARENTS' EDUCATION, SOCIOMETRIC STATUS, INTELLIGENCE
TEST SCORES, AND SCHOOL MARKS FOR 55 THIRD YEAR SECONDARY SCHOOL
STUDENTS IN SÃO PAULO

	Sociometric status (Leadership)	Intelligence ^a	School marks
Educational level of parents	-.03	.01	.15
Sociometric status (leadership)	—	-.31*	.45**
Intelligence ^a	—	—	.61**

* $p < .05$.

** $p < .01$.

^a The sum of the scores obtained on both forms of the intelligence test.

parents' education in the secondary school was equal to the average for the elementary school parents.

The unexpected finding in the secondary school results is, however, the negative and fairly significant correlation between leadership, sociometrically determined, and intelligence test scores. This finding is inconsistent with the results of studies in the United States that rather routinely find positive correlations between measures of leadership and intelligence (1, 2, 3, 4).

Perhaps the restricted range of the sample has something to do with this finding, but confusion is further compounded by the fact that *both* leadership and intelligence tests scores are positively and significantly correlated with school marks. Evidently there are two ways of achieving academic success in the classes studied: one, that of having a high level of verbal intelligence, and the other, that of being the kind of person who is recognized as a leader. The fact that the research shows this is not surprising, but what is surprising is that these two approaches to success should turn out to be mutually exclusive. This finding deserves additional study in order to determine whether it is peculiar to this school (or these two classes) or whether it is widespread throughout Brazil.

D. SUMMARY

A study of elementary school children in São Paulo, Brazil, showed that social status (as indicated by educational level of parents), sociometric status, intelligence, and academic success are positively and significantly intercorrelated, just as they are in similar studies in the United States.

A similar study of secondary school students showed that social status (as indicated by educational level of parents), intelligence, and academic

success are positively intercorrelated, but that social status does not correlate as highly with these variables as it does in the elementary sample. This finding may be accounted for by the selective nature of the school and the consequent restriction in range of ability. An unexpected finding was the fact that sociometric leadership ratings and intelligence test scores were negatively correlated, although each of these ratings was positively correlated with school marks.

REFERENCES

1. FLINT, A. W., & BASS, B. M. Comparison of the construct validities of three objective measures of successful leadership behavior. In: *Behavior in Groups*, Off. of Naval Res. Tech. Rep., No. 17, 1958.
2. KIESLING, R. J., & KALISH, R. Correlates of success in leaderless group discussion. *J. Soc. Psychol.*, 1961, **64**, 359-365.
3. LIDDLE, G. Overlap among desirable and undesirable characteristics in gifted children. *J. Educ. Psychol.*, 1958, **49**, 219-223.
4. PALMER, D., & GREER, G. D. An analysis of certain determinants, characteristics and covariates of basic trainee leadership sociometric data. Unpublished paper delivered at the annual convention of the Western Psychol. Ass'n, 1956.
5. WARNER, W. L., MEEKER, M., & EELLS, K. *Social Class in America*. Chicago: Science Research Associates, 1949.

1975 15th Avenue
San Francisco 16, California

Regional Center for Educational Research
C.P. 5031,
São Paulo, Brazil

GAME INVOLVEMENT IN ADULTS*†

Howling Green State University, Cornell University, and Williams College

BRIAN SUTTON-SMITH, JOHN M. ROBERTS, AND ROBERT M. KOZELKA

A. INTRODUCTION

The most common explanation for individual differences in recreative interest is that they are the outcome of such nonpsychological factors as differences in wealth, group membership or ecologic opportunity (2, 18). It is held here, however, that persistence in recreations of various sorts is linked with the expression of characteristic motives. Earlier papers (10, 11, 12, 15), have shown that when games of the three major classes of strategy, chance, and physical skill are examined cross-culturally they are systematically related to specific variables both in the sphere of child training and elsewhere in the general culture. Thus, games of strategy are related to obedience training and to cultural complexity; games of chance are associated with high responsibility training and a belief in the benevolence of the gods, and games of physical skill are related to an emphasis on achievement.

These relationships suggested a *conflict-enculturation* hypothesis of model involvement which stated (11, 12, 15) that conflicts induced by social learning in childhood and later (such as those related to obedience, achievement, and responsibility) lead to involvement in expressive models, such as games, through which these conflicts are assuaged and as a result of which a process of buffered learning occurs which has enculturative value for the competences required in the culture (such as acquiring the competitive styles of strategy, physical skill or chance). The same *conflict-enculturation* hypothesis will be cited in the discussion of game involvement in American adults.

In an earlier publication (11), the game relationships were based on cross-cultural comparisons and the findings from this source were then strengthened by using them as a basis for predictions within the United States (a technique termed subsystem replication). Thus it was held that girls who have higher obedience and responsibility training than boys would play more games of strategy and games of chance while boys who have higher achievement training than girls would play more games of physical skill.

* Received in the Editorial Office on November 26, 1962, and published immediately in accordance with our policy of special consideration for cross-cultural research.

† This investigation was supported by Public Health Research Grant MH 04161-03 from The National Institute of Mental Health, Public Health Service.

These predictions were confirmed in the case of a sample of 1,900 Ohio school children. In an attempt to strengthen these findings even further, the present paper extends this subsystem replication to cover sex, economic, and occupational differences in the recreational involvements of national samples of adults.

The predictions for adult game preferences in the United States which have been derived from earlier studies are the following:

1. Because games of strategy are associated cross-culturally with severe primary socialization, psychological discipline, high obedience training and complex cultures, they will be preferred in this culture by the persons who have had greater experience of such a child training pattern, that is, the higher status groups as compared with the lower, and women as compared with men.

2. Because games of chance are associated cross-culturally with high routine responsibility training, punishment for the display of initiative, and a belief in the benevolence of the gods, they will be preferred in this culture by members of the lower status groups as compared with the higher and by women as compared with men.

3. Because games of physical skill are associated cross-culturally with high achievement training, they will be preferred in this culture by the upper as compared with the lower status groups and by men as compared with women.

With respect to the third prediction the state of the literature does not permit the definite statement that the relationship between need achievement and status is a linear one (3). There are some indications that upper middle groups may have as high an achievement motivation as the upper groups. Two cautionary points are necessary with respect to these predictions. First there is no implication in this account that those adults who are highly involved in games need have any awareness of the motivations associated with their preferred games. Phenomenologically they may enjoy playing and they like to win. Secondly, it is not claimed that all differences between status groups in game preferences can be explained in terms of the present categories of psychological motivation. Other variables of an historical and social psychological sort are certainly involved in recreational choice as a considerable literature attests (4). The purpose here is to show, rather, that if the present psychological considerations are taken into account they can predict to major effects for which other more satisfactory general theoretical formulations do not exist.

B. METHOD

Three survey polls made in 1940 and 1948 were used in this study.¹ All polls provided tests for some or all of the above hypotheses. The polls are described briefly below:

1. *The American Institute of Public Opinion* (Gallup) Poll of 1940 (U.S.A. - A.I.P.O. No. 187) in which 3,242 subjects were asked, amongst various questions of a political and recreative sort: "Which of the following games have you played in the last year?" The list included tennis and golf; bridge and checkers; bingo, craps, and dice. Tennis and golf are games of physical skill; bridge and checkers taken together constitute a combination category of chance and strategy; and bingo, craps, and dice are games of pure chance. Responses classified by sex and occupation were used in this study.

2. *The Minnesota Poll, No. 53, 1948* in which 598 respondents were asked: "These are some questions dealing with recreation, that is, the things people do in their spare time for their own enjoyment. Which of these things do you like to do most in your spare time?" Responses to the items "doing miscellaneous sports" (which included fishing, hunting, bowling, football and baseball, golf, skating and swimming) and "watching sports contests" were analyzed by sex and level of education. While some of the above items are not games, it is assumed that dominance of physical skill games in this category is the major determinant of responses.

3. *The Roper-Fortune Survey No. 73 of 1948* was a survey devoted completely to recreation. The responses of 3,008 subjects were classified in terms of sex, income, education and occupation. Subjects were asked which of several activities they most enjoyed doing in their spare time. The responses most relevant to this inquiry were those having to do with sports. These have been arranged in terms of activities involving direct participation (doing outdoor sports, going out for sports and other participant sports) and vicarious participation (watching sports, attending sports and listening to sports on radio). The very different levels of response in Table 3 are due to the fact that items No. 1 and 4 were provided by the questionnaire while items No. 2, 3, 5, and 6 were written in by the respondents.

The use of the poll data to test the predictions was quite straightforward. The actual techniques used can be plainly inferred from the results presented below.

¹ All data were made available through the facilities of the Roper Public Opinion Center at Williams College, Williamstown, Massachusetts.

C. RESULTS

All the results from the first poll were in the predicted direction, which means that the findings from the cross-cultural study have now been replicated both with children and adults within the United States. As Table 1 indicates the males who are assumed to have had higher achievement training than the females played more games of physical skill (tennis and

TABLE 1
A.I.P.O. POLL NO. 187. SEX AND OCCUPATIONAL RESPONSES TO GAMES

Respondent group	N	Percentage of responses		
		Golf, tennis	Bridge, checkers	Dice, craps bingo
Males	2163	21	58	1.10
Females	1079	17	62	2.22
Professionals	289	49	74	.34
Proprietors	497	36	66	1.0
Clerks	539	35	72	.73
Skilled workers	254	21	54	.78
Servants	99	15	63	2.1
Semiskilled workers	377	14	52	3.4
Other unskilled	218	9	43	1.3
Farmers	652	7	53	1.6
Farm laborers	26	7	42	0

golf) ($t = 2.78$, $p = < .01$).² The females who have had more obedience and responsibility training played more games of strategy and chance (checkers and bridge) ($t = 2.19$, $p = < .05$) and more games of chance (bingo, craps and dice) ($t = 2.23$, $p = < .05$) than the males.

The occupational differences are also in general accord with the predictions. The professional classes, who it is assumed have had the highest achievement and obedience training, showed a greater interest in physical skill and strategy games than any of the other classes. For games of physical skill all differences are significant at $p = < .01$. For games of strategy, the differences between the professional classes and some of the intermediate groups (*viz.* clerks) were reduced, but the former still displayed a significantly greater preference for such games than all the worker groups (servants, skilled, unskilled and semiskilled) ($p = < .05$). Again, as predicted, most of the worker categories in which responsibility and routine occupations were held to be characteristic showed a greater interest in games of chance

² All tests are t -tests and are based on the significance of the difference between the percentage of responses.

than the professional group, although only the difference between the semi-skilled worker group and the professional group was significant ($p = <.01$).

The second poll (No. 53) provided a more fitting test of the hypothesis concerning achievement and sports because the recreations mentioned are more general, and not necessarily those which would be associated in common expectation with higher status groups (as are golf and tennis). The sex difference is stronger in this case being significant both for doing sports ($t = 5.38$, $p = <.01$) and watching sports ($t = 6.36$, $p = <.01$). The tendency in the results was for the college educated to show more interest than the high school educated, who showed more interest than the

TABLE 2
MINNESOTA POLL NO. 53, 1948. SEX AND EDUCATIONAL RESPONSES TO SPORTS ITEMS

Respondents	N	Percentage of responses	
		Miscellaneous sports, fishing, hunting, bowling, football, baseball, golf skating, swimming	Watching sports contests
Male	296	28	33
Female	302	11	12
College graduate	66	23	28
College (incomplete)	64	28	36
High school graduate	163	24	25
High school (incomplete)	106	15	23
Grade school	192	16	14

grade school educated. None of these differences for engaging in sports were significant though they were all directional. Thus for the college incomplete group compared with the grade school group, $t = 1.93$ and for the combined college group compared with the grade school group, $t = 1.95$. All differences were greater for watching sports. Both combined college ($t = 3.75$, $p = <.01$) and combined high school groups ($t = 2.77$, $p = <.01$) manifested a significantly higher level of preference than the grade school group.

Table 3 indicates that as in Tables 1 and 2 there was a tendency for higher status groups (education and income) to display a greater participant and vicarious interest in sports. The educational status index followed the predicted pattern most consistently with the college groups showing higher percentages than the grade school groups on all comparisons. Five out of six of the differences were significant at $p = <.05$ (Nos. 1, 2, 3, 4, 6), the other was directional (No. 5). The highest economic status group (A) had significantly higher percentages than the lowest economic status group (D)

TABLE 3
ROPER FORTUNE SURVEY No. 73. RESPONSES TO RECREATIONAL ITEMS BY SEX, ECONOMIC STATUS, EDUCATIONAL STATUS,
AND OCCUPATIONAL STATUS

Respondents	N	Direct participation			Vicarious participation		
		1 Doing outdoor sports	2 Go out for sports	3 Other partic. sports	4 Watching sports	5 Attend sports	6 Listen to sports on radio
<u>Sex</u>							
Male	1502	21	2	6	26	4.4	3
Female	1506	6	.8	2	5	.8	.5
<u>Economic</u>							
Class A	185	18	1.1	4.8	19	1.1	2.1
B	702	13	1.7	7.7	19	4.4	1.8
C	1354	15	1.7	4.0	16	2.4	1.3
D	767	12	.5	2.3	11	1.8	2.3
<u>Educational</u>							
College	684	17	1.7	6.1	20	3.6	2.3
High school	1378	15	1.8	5.2	17	2.2	1.9
Grade 1-8	873	9	.4	1.7	11	2.6	1.0
<u>Occupational</u>							
A Professional	133	15	.7	10.6	20	4.5	5.2
B Proprietor	239	21	1.5	7.6	25	4.5	2.0
C Salary exec.	101	27	—	10.0	34	5.0	3.0
D Salary minor	285	17	4.2	5.5	23	2.4	1.0
E Factory wgs.	326	23	2.1	5.3	27	3.6	3.0
F Other wages	365	14	1.9	4.9	20	3.2	2.0
G Farm propr.	207	19	1.5	2.5	15	3.3	.9
H Farm wages	92	21	1.0	4.4	17	3.3	3.0
I Housekeeper	1048	7	.6	1.8	4	.6	.3
J Student	66	25	6.0	10.6	33	9.0	0

on two out of the six possible comparisons (Nos. 1 and 4). Two were directional (Nos. 2 and 3). The occupational extremes (professional *vs.* factory wages) did not show any significant difference in favor of the professionals; in fact, factory wage workers evinced a significantly greater preference for attending sports (No. 4; $p = < .05$). Salary executives did show stronger directional preferences than factory wage workers on most of the items, though none of the differences were significant.

In sum, of the 18 comparisons between the extremes in each status category (college *vs.* grade school; economic A *vs.* economic D; professional *vs.* factory wage workers), seven favored the hypothesis, 10 were nonsignificant and one was in a contrary direction.

D. DISCUSSION

The major predictions of this study have been confirmed. Both the cross-cultural findings and the smaller scale regional subsystem findings with children have now been replicated on these three national adult samples. Additional support for some of these empirical findings may be found in the studies reported by Caillois (1), Clarke (2), de Grazia (5) and White (18), where they overlap with this inquiry. In the present study, games of strategy have been shown to be associated with women and higher status, games of chance with women and lower status, and games of physical skill with men and higher status. It will be recalled that these predictions have a basis in the hypothesized intervening psychological variables of obedience, responsibility and achievement training which were found to be related to games in the cross-cultural study. Thus in earlier studies, conflict over obedience induced by child training procedures was shown to be related to the presence of games of strategy on one level and cultural complexity on another (10, 11). The same relationships were discovered to hold for the relative importance of strategic outcomes in tales (12). Responsibility training was shown to be related to games of chance and a belief in the benevolence of the gods. Games of physical skill were related to achievement training. The fact that, cross-culturally, women generally have higher obedience and responsibility training led to the present predictions that in this culture also they would show more preference for games of strategy and chance than men. In addition because men have higher achievement training it was predicted that they would prefer more games of physical skill than do women. The association of games of strategy with cultural complexity and of obedience training with higher social status led to the prediction that these games would be associated in this culture with higher social status.

The association of games of chance with responsibility training, which involves menial and low level drudgery and routine activities, led to the prediction that these games would be preferred by persons of lower social status. Again the association of achievement with higher social status led to the prediction that persons of higher status would play more games of physical skill. All of the various findings support the *conflict-enculturation* hypothesis stated in the introduction.

Although the results of this study have followed the predictions with considerable consistency there has been one important exception. The professional occupational group (Table 3), failed to show a high percentage of response to interest in physical game activities. The other high status group (the salary executives) and a low status group (the factory wage workers), both showed significantly higher percentages of interest. One interpretation of this result is that the occupational status index is not as adequate an index of need achievement as are the economic and educational indices in which no such reversal of expectation occurred. Kaltenbach and McClelland (7), using a sociometrically based criterion of perceived success, placed the occupational index as the least adequate criterion. In an earlier paper, however, the present investigators have taken another position which would seem to handle this exception more comprehensively. Thus in the earlier cross-cultural work it was discovered that the number of types of games in a culture is positively associated with achievement training (11). It seemed reasonable then to view games as various types of achievement models. From which it was postulated that those who practice persistently at a particular game type should be rehearsing the success style that is involved in that model. Those persisting with games of strategy would be practicing a style in which success is contingent upon clever decision making (a strategic success style); those practicing games of physical skill would be practicing a style in which success is contingent upon a display of power, motor skill or courage (Potency); those playing games of chance would be practicing a style in which success is contingent upon the omnipotence of the player's luck (Fortunism). In a study with children (15), in which a sociometric instrument based on these stylistic characteristics was used to predict intelligence, socioeconomic status, personality attributes and game preferences, it was found that those to whom a fortuneist style was attributed by their peers tended to be more often seen as failures both by children and by teachers, and to be of lower intelligence and socioeconomic status; that those to whom a potent style was attributed were of high group status, were perceived of as good at sport, showed a higher preference for games of

physical skill, but were of low intelligence; that those who were seen as strategists were also of high group status, were seen as not good at physical sports, preferred games of strategy, and were of high intelligence. These findings permit the formulation that achievement by high status persons may be differentiated into at least two types: that with a basis in power, and that with a basis in strategy.

In the high economic and educational status groups of Table 3, these two achievement styles are presumably mixed together. In the occupational section, however, it seems a differentiation has occurred by occupational group. Salary executives who show greater preference for physical skill games than professionals may be said to show a higher preference also for a power style than the professionals do, that is, if the earlier finding with children with regard to competitive styles and game choices can be safely extrapolated to this present data. The higher choice that professionals have for games of strategy (Table 1) is consistent with this interpretation. Further support for the formulation comes from a study by Veroff, Atkinson, Feld, and Gurin (17), in which a T.A.T. measure of power and achievement was used in a nationwide sample. Analysis of the relationships between occupational groups and power (p. 23) shows a ranking somewhat similar to that shown above for the interest in physical sports (Table 3). Salary Executives and Factory Workers have a higher ranking than professionals on both power and physical sports interest. Conversely, the Veroff rankings on achievement are similar to those in Table 1 for strategy. None of these parallels can be regarded as finally convincing, but the suggestion certainly follows that the present relationships might be further explicated in future research by the measurement of achievement which is differentiated in terms of strategy and power.

Although the *conflict-enculturation* hypothesis has been described in other publications (11, 12, 15), it is relevant here to explicate the hypothesis in terms of its relationships to achievement motivation since this particular motivation has been given most attention in this paper. Discussion of the hypothesis in relation to obedience and responsibility, as well as to achievement, will be found elsewhere (11, 12, 15) and a much more elaborate treatment of the hypothesis will be forthcoming.

It will be recalled that games of all types have been shown to have some relationship to achievement training and that all games can be viewed as achievement models, particularly those which model achievement through power and skill. Games of pure physical skill (weight lifting, bowling) model only these last characteristics, but games of physical skill and strategy (boxing, football) model in addition the attributes of strategy.

The *conflict-enculturation* hypothesis involves a number of propositions, each of which will be stated abstractly below and then followed by the relevant details. The first two propositions have to do with *conflict* and include the concepts of conflict arousal, curiosity, and model involvement. The second two propositions are concerned with *enculturation* and include the concepts of social learning and personality adjustment.

1. (a) Conflict induced in children or adults by achievement training arouses in them curiosity about those expressive models that contain a representation of winning and losing as a result of the application of power and skill.

The hypothesis holds that learning can produce conflicts (a balance of approach and avoidance tendencies), which heighten an individual's interest in the variables which are involved in his conflict. This is the familiar concept of conflict-induced drive (19). The positive and negative discipline which might be expected to underly such approach-avoidance tendencies have been established in earlier research (11). Thus playing games of physical skill was found in tribal cultures with a high frequency of achievement training, a high reward for achievement, but at the same time high punishment for nonperformance of achievement. It would seem that children, seriously limited in size, skill and power, yet motivated to achieve and anxious about being able to do so, can seldom find in full scale cultural participation sufficient behavioral opportunities to match adequately both their desire and their anxious incompetence. It is believed that in childhood this achievement anxiety expresses itself most frequently as a fear of failure. The contemporary psychological definition of achievement drive as competition against a standard of excellence, tends to underplay the extent to which in childhood such an achievement standard is usually part of an interpersonal relationship, so that to achieve the subject must face some other person's expectations, or alternatively must face the rivalry of another competitor, usually a sibling, peer or parent. Anxiety about achievement in childhood is primarily anxiety acquired in such interpersonal situations. This leaves children with an interest in winning, particularly if there is the possibility of doing so in some way that will reduce their fear of failure and provide appropriate "matching" for their limited talents. Their "curiosity" about achievement models has this origin.

1. (b) Persons who are made curious about achievement by their conflict over it readily become involved in achievement as represented in expressive models.

Desiring to beat opponents but frightened to lose, the child is motivated to explore and to be curious about opportunities to deal with his conflict in a more manageable fashion. He is attracted to a variety of culturally provided expressive models. Some of these may be vicarious as in folktales, comics, and television and may suggest that the small participant can win (Jack and the Giant Killer, Mighty Mouse), or that the central figure may have powers to overcome insuperable odds (Superman). Or the expressive models may be of the participant variety like physical skill games in which the consequences of winning and losing are drastically reduced. Noticeably, in the earliest forms of physical skill and strategy games such as tagging and hide-and-seek, both winning and losing are episodic and their intensity is decreased by the instability of the sides. There is, in addition, no final explicit outcome so that there is a lack of clarity about which players have actually won or lost. This reduction in the objective clarity of winning and losing, however, permits rather than prevents subjective estimates of success to assume relatively egocentric proportions. Thus Piaget has shown very young children all imagine they have won in the games that they play (9). And Maccoby has demonstrated that six-year-olds anticipate success with their peers in a way far exceeding the limits of possibility (8). With the passage of chronological age there is a developmental change in the models in which children can find a statement for their problems of winning and losing. The diffuse skill models of the earlier years give way to games in which the requirements for winning are more rigorous and the penalties for losing more obvious (marbles, football) (14). Children of different maturity levels, therefore, can find a matching for the maturity of their achievement conflicts somewhere in each of the many series to be found in the cultural model array of tales and games, etc.

The second part of the present theory is that once the child becomes *involved* in games a further series of circumstances occur to which the broad term *enculturation* has been given. At the present time in the development of this theory, the term *enculturation* is being used to apply to two distinct processes, the first of which can be called "social learning" and the second "personality adjustment." Both seem necessary to explain the players' continued involvement and the cultural significance of expressive models.

2. (a) In the case of children, and to a lesser extent adults, participation in achievement games contributes to physical, intellectual, and social learning, each of which in due course may contribute to the participant's ability to survive in the full scale success systems of the larger culture.

It has been assumed traditionally that various physical, intellectual and, particularly moral, characteristics have been learned as a result of participation in games, more especially team games. Whether or not these traditional assumptions are well founded, it is contended here that in achievement games there is learned a capacity to master the contingencies of winning and losing in interpersonal competition, and that the development of this capacity is fostered by the game-contained demands. There is some, if partial, evidence for this latter claim (6). The argument is, that because games reduce the scale on which the competition occurs, then winning and losing as complex interpersonal events become more readily assimilable by the child. Even loss is more acceptable when it is known that victory may occur in a second episode. The dangers and threats associated with both winning and losing are thus much reduced, while the gratification in winning is not. Furthermore, losers are defended by the play convention that the game is only for "fun" anyway. Privately, at least, a victor may think what he likes about winning. The view that expressive models make social and behavioral complexities more assimilable (both cognitively and emotionally) to the participants is a part of a more general argument of the present investigators that expressive models exist for the very reason that they can convey to participants information which cannot be assimilated more simply nor without overwhelming anxiety in large-scale cultural participation.

In sum, the first reason for a player's involvement in any particular model is that the model has scaled down the dimensions of his conflict to a point where it is intellectually and emotionally comprehensible. In turn, the player's involvement in the clarity and safety of the model's presentation, facilitates learning.

2. (b) Expressive models contribute to a player's adjustment to the cultural pressures which have given rise to his conflict (child training pressures for children, current success pressures for adults), because they are exercises in mastery.

By scaling down the conflict dimensions the games give their participants the confidence that winning and losing as complex interpersonal processes and anxiety inducing ones can be mastered. It is in this sense that the game is a mechanism of personality adjustment. It is legitimate to call this an enculturative function, however, because the adjustment involved means that the underlying process of achievement training adopted by the parents has greater assurance of success, and that the pressures put upon children to achieve and be concerned about achievement will not lead to overwhelming

despair and inferiority. Likewise with adults, contemporary pressures towards success may be similarly reduced to assimilable proportions. If this theoretical position be correct, then the various achievement models which have survived in our culture do so because they continue to have this culturally adaptive significance. It has, for example, always been something of a puzzle to explain the persistence of some of the most elementary of expressive models such as tagging (16). We now consider that it is their function to preserve within the player the confidence that some of the incompatible pressures which afflict him are manageable and that he may continue to survive successfully in the cultural system that engenders his conflicts. This increased confidence in himself would be a second reason for the player's involvement in the expressive models.

An alternative conceptualization of this "adjustment" process would be to say that the game "involves" the player because it "resolves his conflict." The difficulty with this formulation in the present case, however, is that the player's original conflict is not resolved. It continues and it must continue if the child training system or the adult cultural system is to be preserved, and to be successful. Perhaps a tension-reduction conceptual paradigm is not the most appropriate one. A level of aspiration paradigm might be more appropriate. The fantasied success and reduced loss would in these terms, not change the large scale world directly, but by increasing the confidence of the players in analogous competitive processes, may elevate their general level of aspiration with respect to these same processes in the large-scale world. In this case the "fun" of the game derives from an exercise in competence rather than an exercise in tension assuagement. There is some supportive if not definitive evidence for this view in the earlier work of these investigators showing that those who prefer games of particular types (physical skill, or strategy) seem to be successful in the same ways (power or strategy) with their peers (15).

Much of the preceding discussion necessarily deals with child training, but this paper is concerned with adults. In the various researches on achievement training in this culture there is suggestion of both reward and anxiety in the training of child achievers, though the various investigations are by no means consistent on this point (3). What is neglected in most research on achievement training is the investigation of the achievement motivation of the parents. Since adults are themselves the mediators of the general pressures at work in the larger community, we might expect that the parents who induce high achievement training conflict in children will also be in similar conflict about achievement in adult concerns. The *conflict-enculturation*

theory implies that the child training relationship to expressive models is but a part of a larger system which has in its total nature been adaptive in culture. Thus we would speculate that the adults most concerned to induce achievement in their children would themselves have high achievement aspirations in terms of the various status indices by which persons in this culture "score" their achievement—roles, houses, annual income, possessions, and the likes. The fact that high status adults will continue to play games of physical skill is supportive of this latter interpretation. The enculturative function, for the adults as compared with the children, however, is presumed to be dominantly adjustive. The game enables these adults to continue to be achievement motivated without succumbing to the pressures that this motivation entails. The game playing ensures periodic inoculations of manageable success and manageable failure, reassuring the participant that he is indeed one who can tolerate such pressures in his own psychic economy. To be sure, some game-related physical skills are learned even by adults, but it is doubtful that much important and progressive social learning takes place through games after biological and cultural maturity has been attained.

These statements do not preclude the possibility that even in adulthood, changes in life circumstances may induce achievement conflicts which will in turn lead to game playing.

In sum, the conflict-enculturation hypothesis says that child training induces conflict which leads to curiosity about representations (as in expressive models) of the dimensions of this conflict. Involvement in models follows because their microcosmic representation reduces the conflict's complexities to cognitive and emotional comprehensibility and because of the successes a player may gain while in the model. This involvement in turn has enculturative value because the participant can learn about the cognitive and emotional aspects of winning in a model in a way that he cannot do outside of it, and because his successes give him increased confidence that he can manage the achievement pressures in full-scale cultural participation. The models thus have the general cultural function that they contribute to the learning and adjustment of persons who must maintain a high level of achievement motivation if the general cultural norms are to be sustained.

This paper has presented the results of a subsystem replication among American adults which when conjoined with the earlier cross-cultural study and subsystem replication among Ohio school children supports a *conflict-enculturation* hypothesis of game involvement. Certainly, this hypothesis will require further study before it is proved, but the results thus far obtained are encouraging. At the very least, this study represents the first large-scale

empirical substantiation⁶ of the view that psychological factors are of major importance in game preferences.

E. SUMMARY

In previous cross-cultural research, relationships were established between child training variables, game playing, and general cultural variables. Using three national surveys with adults the following hypotheses derived from the cross-cultural study were confirmed within this culture:

1. Because games of strategy are associated cross-culturally with severe primary socialization, psychological discipline, high obedience training, and complex cultures, they will be preferred in this culture by the persons who have had greater experience of such a child training pattern, that is by the higher status groups as compared with the lower and by women as compared with men.

2. Because games of chance are associated cross-culturally with high routine-responsibility training, punishment for the display of initiative, and a belief in the benevolence of the gods, they will be preferred in this culture by members of the lower status groups as compared with the higher and by women as compared with men.

3. Because games of physical skill are associated cross-culturally with high achievement training, they will be preferred in this culture by the upper as compared with the lower status groups and by men as compared with women.

The results were conceptualized in terms of a *conflict-enculturation* theory of games.

REFERENCES

1. CAILLOIS, R. *Man, Play and Games*. Glencoe: Free Press, 1961.
2. CLARKE, A. C. Leisure and occupational prestige. *Amer. Sociol. Rev.*, 1956, **21**, 301-307.
3. CRANDALL, V. J. Achievement. In H. W. Stevenson (Ed.), *National Society for the Study of Education: Yearbook, 1963*. Pp. 416-459.
4. DENNY, R., & MEYERSON, M. L. A preliminary bibliography on leisure. *Amer. J. Sociol.*, 1957, **62**, 602-615.
5. GRAZIA, S. DE. *Of Time, Work and Leisure*. New York: Twentieth Century Fund, 1962.
6. GUMP, P. V., & SUTTON-SMITH, B. The "it" role in children's games. *The Group*, 1955, **17**, 3-8.
7. KALTENBACH, J. E., & MCCLELLAND, D. C. Achievement and social status in three small communities. In D. C. McClelland et al., (Eds.), *Talent and Society*. New York: Van Nostrand, 1958.
8. MACCOBY, M. The game attitude. Ph.D. thesis, Lab. of Soc. Relations, Harvard University, 1960.
9. PIAGET, J. *The Moral Judgment of the Child*. Glencoe, Ill.: Free Press, 1948.

10. ROBERTS, J. M., ARTH, J., & BUSH, R. R. Games in culture. *Amer. Anthropol.*, 1959, **61**, 597-605.
11. ROBERTS, J. M., & SUTTON-SMITH, B. Child training and game involvement. *Ethnology*, 1962, **1**, 166-185.
12. ROBERTS, J. M., SUTTON-SMITH, B., & KENDON, A. Strategy in games and folktales. *J. Soc. Psychol.*, in press.
13. SUTTON-SMITH, B. A formal analysis of game meaning. *Western Folklore*, 1959, **18**, 13-24.
14. ———. The Games of New Zealand Children. Berkeley: Univ. California Press, 1959.
15. SUTTON-SMITH, B., & ROBERTS, J. M. Rubrics of competitive behavior. *J. Genet. Psychol.*, in press.
16. SUTTON-SMITH, B., & ROSENBERG, B. G. Sixty years of historical change in the game preferences of American children. *J. Amer. Folklore*, 1961, **74**, 17-46.
17. VEROFF, J., ATKINSON, J. W., FELD, S. C., & GURIN, G. The use of thematic apperception to assess motivation in a nation-wide interview study. *Psychol. Monog.*, 1960, **74** (Whole No. 499), 1-32.
18. WHITE, C. R. Social class differences in the use of leisure. *Amer. J. Sociol.*, 1955, **61**, 145-150.
19. WHITING, J. W. M., & CHILD, I. L. Child Training and Personality. New Haven: Yale Univ. Press, 1953.

Department of Psychology
Bowling Green State University
Bowling Green, Ohio

A ROLE THEORY OF ARTISTIC INTEREST*

The Defiance College

VYTAUTAS KAVOLIS

A. INTRODUCTION

A good deal of the published research evidence on the social correlates of artistic interest may be summed up under two generalizations: (a) artistic interest is associated with the occupancy of expressive roles; and (b) artistic interest is associated with role strain.

Psychological variables have to be introduced to account, in part, for these associations.

B. EXPRESSIVE ROLE OCCUPANCY

The distinction between instrumental and expressive roles hinges on (a) the extent to which a role is oriented toward adaptation to the external environment as against internal integration of the social system of which it is a part; and (b) the extent to which affective neutrality is required from a role occupant in the performance of role obligations (27). Roles which are oriented primarily toward system integration and which permit affective spontaneity in the performance of obligations are regarded as predominantly expressive.

In American society, the female sex role is more expressive, and women are consistently found to be more interested in art (3, 28, 31). But among the Tchambuli, a society in which women reportedly assume roles of instrumental leadership in extrafamilial task performance, it is the males who are most interested in art (23).¹ The comparison suggests that when roles are acquired by ascription, as sex roles must be, the training toward the assumption of an expressive role and/or the performance of the obligations of this type of role generate artistic interest.

An opportunity to test the strength of the linkage between expressive role

* Received in the Editorial Office on December 11, 1962, and published immediately in accordance with our policy of special consideration for cross-cultural research.

¹ The Tchambuli "may be said to live principally for art" (23, p. 70). A possible hypothesis is that, at least in patrilineal societies, males will be assigned predominantly expressive roles when expressive activities constitute a dominant focus of concern. This has been the case in Renaissance Italy, where art was also highly regarded: "Nearly everywhere the leading patrons and friends of art are men" (17, Vol. 2, p. 48).

and artistic interest is provided in situations in which expressive roles are acquired by achievement. Investigations of the interest patterns associated with distinctive occupational roles indicate that, by and large, a positive relationship between expressive role and artistic interest has been demonstrated (3, 11).

When achieved roles are involved, the shaping of basic interests presumably antedates the choice of the role. In this case, the relationship between artistic interest and expressive role obtains either (a) because artistic interests predispose the actor toward the choice of an expressive role, or (b) because a common background factor generates both artistic interest and a predisposition toward the choice of expressive roles.

One background variable which is related to both artistic interests among nonartists (4, 12) and the choice of relatively expressive occupational roles, both artistic (10) and nonartistic (19, p. 123), is *ambiguity tolerance*. Among artists, ambiguity tolerance may be conceived of as one factor conducive to the emergence of artistic interests, which then motivate the choice of an expressive occupational role. In the case of nonartists, ambiguity tolerance may independently contribute toward both the formation of artistic interests, and the choice of relatively expressive but nonartistic occupational roles.

The social class differences in artistic interest are consistent with the present hypothesis. Social class is directly associated with artistic interest (7, 16, 28), ambiguity tolerance (12), and a tendency to structure achievable roles in less instrumental terms (14, p. 15). Education, too, is directly associated with ambiguity tolerance (12, 19), artistic interest (3, 19), and the tendency to think of achievable roles in less instrumental terms (14).

Further support for the ambiguity tolerance theory is provided by the finding that persons with strong artistic interests are less likely to identify with a definite religious organization (13). Presumably, the artistically interested personality is more capable of tolerating a lack of clearly structured definitions of the situation. For that reason, he may be more ready to assume expressive roles, which are in general less definitely structured than comparable instrumental roles.

The data on sex differences in ambiguity tolerance give, however, only slight, if any, support for the ambiguity-tolerance theory. Adorno *et al.* have demonstrated that, with social group membership held constant, the means for men on the *F*-scale "are not significantly different from those of women," even though "in each case the men are slightly higher. . ." (1, p. 268). The superior intensity of female artistic interest is apparently not mainly due to greater ambiguity tolerance, but may have been effected by

formal cultural ascription (or by the psychodynamic mechanism discussed in the following section).

C. ROLE STRAIN

The concept of role strain refers to the "felt difficulty in fulfilling role obligations" (15, p. 483). Several kinds of evidence point to a linkage between artistic interests and various types of role strain.

An American study reveals that both men and women whose nonartistic interests deviate from those typical of their own sex are more interested in art than those whose nonartistic interests are typical of their sex (3).² Terman and Miles have demonstrated that the artists are one of the male occupations with the lowest scores on a test of conventionally conceived masculinity (31). While both cases involve sex-role deviance, Margaret Mead seems to imply that any kind of *role deviance* stimulates artistic interests (23, p. 215).

A British finding that both radicalism and introversion are positively correlated with artistic interests (11; cf. 9) implies a linkage between *role discomfort*, whether contemporary or antecedent, and artistic interest. The association between neuroticism and artistic interest is also positive, but the coefficient of correlation is lower. Role deviance and role discomfort appear to be more powerfully related to artistic interest than is personality maladjustment, with which they may have been occasionally confused. Several American studies have shown artistic interest to be related to nonconformism and self-sufficiency (9, 25), which would in itself be a cause for role strain in a predominantly other-directed society.

A third type of role strain is associated with *role change*. If artistic interests apparently increase with advancing age among college students (3, 19), and decline, in both sexes, with advancing age among adults (7, 20), artistic interests seem to be stimulated by the experience of transition from adolescent to adult roles. The general association between *rites de passage* and art may reflect an implicit recognition of the increased need for aesthetic elaboration of situations involving role transition.

• The universal artistic interests of the Bali islanders have been interpreted to be linked with a repetitive pattern of sudden role changes, which requires that the children constantly shift from affective to affectively neutral roles (22).

² In American culture, males generally have higher scores on theoretical, economic, and political values; and aesthetic interests are *more negatively* associated with such values in a sample of 100 males than in a sample of 100 females. Conversely, in American culture, females generally have higher scores on social and religious values; and aesthetic interests are *more negatively* associated with these values in the female than in the male sample (3).

The paramount artistic interests of the Tchambuli males may be in part a response to the loss of their military (warfare and headhunting) roles (23).

It seems probable that the present growth of artistic interests in American society is linked with the on-going changes in the system of role definitions, particularly with the confusing effects of the important changes in the sex roles (24, p. 211).

✓ What Malinowski has said concerning myth, seems to apply to artistic interest as well: "... myth functions especially where there is sociological strain. . . , and unquestionably where profound historical changes have taken place" (21, p. 126). Popular artistic interest in fact increased during the French Revolution (17, Vol. III, p. 163).

The linkages between role deviance, role discomfort, and the several kinds of role change, on the one hand, and artistic interest, on the other, suggest that role strain may generate artistic interest—and in this way become one of the (possibly alternative) preconditions of cultural creativity in the arts.

Yet it seems that a particular kind of personality structure—one incorporating strong internal restraints—is needed to convert the subjective experience of role strain into artistic interests. Such personality structures are more distinctive of artists than of nonartists (25, 29). This may be one reason for the stronger artistic interest of (American) women, as they possess more developed "internalized controls" (6); and for the tendency of students, both male and female, who report "the most fears, worries, conflicts, and the like" to concentrate "in the literary or fine arts fields . . ." (5, p. 571). The association of artistic interests with internal restraints may be responsible for the high suicide rate of artists (8), if suicide is rightly regarded as involving inward-directed aggression by persons with strong internal restraints (18).

The high suicide rate of artists also implies that artistic activity either does not completely neutralize the strain in response to which it may have emerged, or creates new tensions, particularly for professional artists active in a society in which instrumental orientations are predominant over the expressive (26, p. 410).

D. TYPES OF ARTISTIC INTEREST

The linkage between role strain and artistic interest suggests that the latter may arise as a cultural "strain-reducing mechanism."

However, the relationship between expressive roles and artistic interest indicates that artistic interest may also be acquired through purposive socialization in role-appropriate interests, or through consciously unintended devel-

opment of idiosyncratic expressive needs. If, as in the latter case, expressive needs are, in part, a product of ambiguity tolerance, they are presumably generated by the kind of nondisciplinarian environment which is associated with high ambiguity tolerance (19, p. 123; 30, p. 365). For such persons, artistic interest is probably not mainly a response to discomfort produced by role strain, unconsciously designed to reduce it; artistic interest may rather be a means of exploration intended to generate the tensions which a relatively noncompulsive personality requires for self-fulfillment (2, p. 68).

Accordingly, three types of artistic interest are distinguished:

1. Traditional artistic interest, associated with ascribed expressive roles and acquired through conventional goal-directed socialization. Art which responds to this interest is apt to be (repetitive, society-stabilizing, impersonal) "ceremonial."

2. Tension-reducing artistic interest, linked with role strain and strong internal restraints, a response to social discomfort. Art which corresponds to this interest would appear as (highly idiosyncratic, compulsively limited to certain forms and form-distortions) "therapy."

3. Tension-inducing artistic interest, associated with achieved expressive roles and high ambiguity tolerance, a product of the need for self-actualization. Art, in this case, functions as an occasion for (spontaneous, exploratory, variety-seeking) "creativity."

Traditional artistic interest may be expected to increase when ascribed roles are more expressively defined. The therapeutic kind becomes more prevalent when more role strain is experienced. Creative artistic interest is presumably promoted by a decline in dogmatism. It is not improbable that all three kinds of changes have been operating in American society to produce the recent increase in artistic interest.

The cross-cultural data referred to in this article have been used illustratively, to suggest and not to test hypotheses. However, their implications are supported by experimental findings which add up to the general conclusion that, while the personality component has an essential part, artistic interest is also a product of the role structure of a society and of the strains generated therein.

E. SUMMARY

A survey of published evidence indicates that artistic interest is linked (a) with the occupancy of expressive roles, either because the ascription of an expressive role generates artistic interest, or because both artistic interest and the choice of achieved expressive role are facilitated by ambiguity tol-

erance; and (b) with role strain, particularly when it is combined with personality factors inhibiting external aggression. Three types of differently caused artistic interest have been distinguished: ceremonial, therapeutic, and creative.

REFERENCES

1. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, N. *The Authoritarian Personality*. New York: Harper, 1950.
2. ALLPORT, G. W. *Becoming*. New Haven: Yale Univ. Press, 1955.
3. ALLPORT, G. W., VERNON, P. E., & LINDZEY, G. *Manual, Study of Values* (3rd ed.) Boston: Houghton Mifflin, 1960.
4. BARRON, F. Some personality correlates of independence of judgment. *J. Personal.*, 1953, **21**, 287-297.
5. BEREITER, C., & FREEDMAN, M. B. Fields of study and the people in them. In N. Sanford (Ed.), *The American College: A Psychological and Social Interpretation of the Higher Learning*. New York: John Wiley, 1962.
6. BRONFENBRENNER, U. The changing American child: A speculative analysis. *J. Soc. Issues*, 1961, **17**, 6-18.
7. CANTRIL, H., Ed. *Public Opinion, 1935-1946*. Princeton, N.J.: Princeton Univ. Press, 1951.
8. CAVAN, R. S. *Suicide*. Chicago: Univ. Chicago Press, 1928.
9. DREYDAHL, J. E. Factors of importance for creativity. *J. Clin. Psychol.*, 1956, **12**, 21-26.
10. EIDUSON, B. T. Artist and non-artist: A comparative study. *J. Personal.*, 1958, **26**, 13-28.
11. EYSENCK, H. J. *The Psychology of Politics*. New York: Frederick A. Praeger, 1954.
12. FRUMKIN, R. M. Dogmatism, social class, values, and academic achievement in sociology. *J. Educ. Sociol.*, 1961, **34**, 398-403.
13. FRY, C. L. The religious affiliations of American leaders. *Scientific Monthly*, 1933, **36**, 241-249.
14. GOLDSSEN, R. K., ROSENBERG, M., WILLIAMS, R. M., JR., & SUCHMAN, E. A. *What College Students Think*. Princeton, N.J.: Van Nostrand, 1960.
15. GOODE, W. J. A theory of role strain. *Amer. Sociological Rev.*, 1960, **25**, 483-496.
16. GRIFF, M. The recruitment of the artist. (Mimeographed manuscript.)
17. HAUSER, A. *The Social History of Art*. New York: Vintage Books, 1957.
18. HENRY, A. F., & SHORT, J. F., JR. *Suicide and Homicide*. Chicago: Free Press, 1954.
19. JACOB, P. E. *Changing Values in College*. New York: Harper, 1957.
20. KELLY, E. L. Consistency of the adult personality. *Amer. Psychol.*, 1955, **10**, 659-81.
21. MALINOWSKI, B. *Magic, Science and Religion*. Garden City, N.Y.: Doubleday, 1954.
22. MEAD, M. Creativity in a cross-cultural perspective. In H. H. Anderson (Ed.), *Creativity and Its Cultivation*. New York: Harper, 1959.
23. MEAD, M. *Sex and Temperament in Three Primitive Societies*. New York: New American Library, 1950.
24. MILLER, D. R., & SWANSON, G. E. *The Changing American Parent*. New York: John Wiley, 1958.

25. MUNSTERBERG, E., & MUSSEN, P. H. The personality structures of art students. *J. Personal.*, 1953, **21**, 457-466.
26. PARSONS, T. The Social System. Glencoe, Ill.: Free Press, 1951.
27. PARSONS, T., & BALES, R. F. Family, Socialization and Interaction Process. Glencoe, Ill.: Free Press, 1955.
28. REISS, A. J., JR. Occupations and Social Status. New York: Free Press of Glencoe, 1961.
29. ROF, A. Artists and their work. *J. Personal.*, 1946, **15**, 1-40.
30. ROKEACH, M. The Open and Closed Mind. New York: Basic Books, 1960.
31. TERMAN, L. M., & MILES, C. C. Sex and Personality: Studies in Masculinity and Femininity. New York: McGraw-Hill, 1936.

Department of Sociology
The Defiance College
Defiance, Ohio

IMPRESSION FORMATION UNDER VARIED SET AND STIMULUS-TRAIT CONDITIONS*¹

Department of Education, Brooklyn College

HARRY BEILIN

A. INTRODUCTION

For Asch (1) forming and changing an impression of a person occurs in accord with a specified process of organization. Such organization tends toward unity and internal consistency. In organizing the impression the component traits become ordered into a structure within which some traits are central, others peripheral. Centrality is a consequence of the interaction of all traits within the organization.

Bruner and Tagiuri (2), in their account of the impression-forming process, place greater emphasis upon role relations of the perceiver to the perceived, situational elements and perceiver cognitive categorization processes. In denial of the account of unitary process detailed by Asch, Gage and Cronbach (3) conceive impression formation as a two-stepped process with information gathering (input) and inference phases. Although Gollin (4, 5) accepts the instantaneous character of interpersonal judgment, his view of the formation process is analogous to the developmental theses of Piaget (8) and Werner (10). He offers evidence of a concept-level hierarchy represented by impressions which become progressively abstract and inferential with age. Impression formation is also achieved in a variety of cognitive styles. This characterization, however, is neither aprioristic nor epiphenomenal. Empiricist variables such as social experience, motivation and usage are said to affect the outcome of the cognitive processes (albeit in a developmental context). In all fairness to Asch it should be said that he is quite aware that social experience and knowledge play a role in the impression, but prime past experience must itself be viewed as directly perceived according to the principles of organization proposed.

A recent paper by Wishner (11) offers evidence that is interpreted to mean that Asch's thesis of centrality-peripherality does not lead to correct

* Received in the Editorial Office on June 7, 1961.

¹ The author is indebted to Dr. Harold E. Mitzel, Mr. Lester Dubnick and the Division of Teacher Education for aid in the machine tabulation of data. He is also grateful to Dean Walter Mais and Brooklyn College for released time for the preparation of this report.

predictions when response lists are altered. He shows that specified check list responses can be better predicted from the correlation of a checklist item and a stimulus term such as *warm* or *cold* than from knowledge of the stimulus terms themselves. In general, Wishner contends that Asch's peripheral and central effects can be predicted on the basis of knowledge of specific intercorrelations of stimulus and check-list terms. Wishner recognizes the possible influence of set or past experience and suggests that his own findings must be interpreted within a context, but even within the context the result will be a function of the intercorrelations mentioned.

What these diverse studies have in common is a view that sets and past experience may influence impressions, but there is no consistency as to the effect of such sets upon the process or processes of impression formation.

An examination of the role of set in impression formation therefore seems indicated. This paper reports on such an attempt. It deals with the influence of set in impression formation in conjunction with and independent of knowledge of personality traits. The choice of this aspect of the problem is suggested by the common-sense observation that in social situations where a person new to an individual perceiver is introduced (with little or no identification) an attempt is made to organize the impression created from perceiving his qualities and actions. This attempt at organization or categorization is evidenced in such questions as "What does he do?" or "Who is he?" This common situation suggests that when knowledge of what a person does (i.e., his occupational class or other status) comes *after* an impression is formed, the categorization process that follows results in congruence between expectations created by his primary impression and information of his status. Where there is incompatibility, this incompatibility is resolved, possibly in the manner described by Haire and Grunes (6).

If, on the other hand, the individual is identified as to status *at the time of introduction*, the relation of this knowledge to the later impression formed by either direct or vicarious knowledge of him may be quite different. It is to this latter problem that the present study addresses itself. We assume that through a variety of social experiences a person acquires knowledge and attitudes toward occupations and persons in them. We assume further that when a perceiver is informed that a person holds a particular occupational status, this knowledge will set him to respond in a particular and consistent fashion depending upon his own (direct or vicarious) experience with that occupation. The set will be in the form of an instantaneous and ready-formed impression (at least for an adult) to which later information from or about the person will interact. With respect to this process we are

interested to know: (a) whether a ready-made or categorical impression of a person is available when an occupational set is induced, and (b) whether information about a person introduced after such a set is induced results in an impression determined by the set, the new information or both.

The design of the present study employs as a base the Asch technique of communicating trait information to subjects and assessing the impressions thus formed. This technique is used in different experimental situations where sets and stimulus-traits are varied.

B. METHOD

The Ss were second and third year students in a large metropolitan liberal arts college; 451 in all participated. The *N* for each experiment is indicated later.

Subjects were read a list of six personality traits said to describe a person. They were instructed to write their impressions of the person, followed by response to an adjective check list (without reading the written impression). This parallels Asch's procedure.² The procedure was modified by presenting information about persons prior to presenting the aforementioned stimulus traits. The "set" information was the person's occupation.

The Ss were allocated to two groups (A and B) in each experiment. For each experiment the Ss respond to the same check lists although the lists differ from experiment to experiment.

It was necessary, first, to obtain some base line data and establish equivalence between groups. To achieve this, two groups, C and D (*N* = 79 in each), were given the same adjective check list and asked to respond to it with the impression of a "friend." After some matching (by drawing from a pool of extra Ss) it was possible to reduce the significant response differences so that only one significant difference remained to 36 adjective comparisons. (The number of significant response differences between groups is the criterion of impression difference for this study.) With equivalence between these groups established, the same matched Ss also responded to seven occupational titles with impressions of persons in these occupations. These occupational set impressions provide a base for comparison with data from combined set and trait impressions.

Since trait information is employed in the experiments, it is necessary to

² It parallels Asch's technique except in one respect. Asch's subjects were instructed to respond to one trait of every trait-pair in the check list. The present Ss responded *only* to those traits in the check list that were consistent with their impression.

establish the stability of responses generated by trait information. For this purpose a set of six traits (emotional—efficient—talkative—rigid—outspoken—unimaginative) was read to groups A and B. The A and B check-list responses were compared. No significant differences exist in the per cent of responses to each of the check-list terms, establishing the consistent effect of the introduction of such information and the homogeneity of the groups in their response to such information.

The specific experiments follow, with indications of the set information given and purpose of the particular experiment. Unless otherwise indicated, the *N* for group A is 146 and for B, 147.

1. Experiment I

Set information: A—Policeman, B—Physicist.

The A and B groups were subdivided into 3 groups each, for variation in stimulus traits. The first subgroup of each (*A*₁, *B*₁) to be referred to as the Warm Stimulus group is presented with Asch's Experiment I stimulus trait list containing the stimulus *warm*: intelligent—skillful—industrious—*warm*—determined—practical—cautious. The second subgroup (*A*₂, *B*₂), the Cold Stimulus group, is offered the same list except for the substitution of *cold* for *warm*: intelligent—skillful—industrious—*cold*—determined—practical—cautious. The third subgroup (*A*₃, *B*₃) has the same list except neither warm nor cold is included (the Neutral Stimulus group).

Purpose: Determine the effect of set upon the formation of impressions with variation of a presumed "central" attribute.

N: *A*₁ = 47; *A*₂ = 64; *A*₃ = 35; *B*₁ = 52; *B*₂ = 63; *B*₃ = 32.

2. Experiment II

Set formation: A—Physicist, B—Policeman.

Stimulus traits: precise—courageous—original—tough—protective—individualistic.

Purpose: Determine the effect of set when stimulus list contains set-related attributes. Set-related attributes were obtained from a pilot study; three traits associated with one occupation are combined with three associated with the other into the stimulus-trait group.

3. Experiment III

Set information: A—Lawyer, B—Accountant.

Stimulus traits: talkative—rigid—emotional—unimaginative—outspoken—efficient.

Purpose: Determine the effect of set when one half of the stimulus traits are "incompatible" with the other. In Experiment IV the effects of the same set (as Experiment III) are assessed when the attributes are "compatible."

4. Experiment IV

Set information: A—Accountant, B—Lawyer.

Stimulus traits: painstaking—patient—persevering—efficient—capable—calm.

5. Experiment V

Set information: A—Librarian, B—Model.

Stimulus traits: sophisticated—obliging—painstaking—conservative—poised—pleasure seeking.

Purpose: Determine effects when the set is from a "female" occupation and the stimulus traits are incompatible.

6. Experiment VI

Set information: A—Reporter, B—Factory worker.

Stimulus traits: adventurous—strong—nosy—dull—unconventional—dirty.

Purpose: Determine effects of contrast in set levels (occupational levels) with incompatible attributes.

7. Experiment VII

Set information: A—Accountant, B—Reporter.

Stimulus traits: rigid—nosy—unimaginative—adventurous—efficient—unconventional.

Purpose: Contrast effects of occupations of different "types" at same occupational level.

8. Treatment

- The results of the study are reported in per cent (of groups A and B) responding to each response trait in the check lists. Further, the differences in response per cent for groups A and B are tested for statistical significance.³ The number of significant differences in each set comparison is taken as an index of the difference in impression created under the different experimental conditions.

³ Significant differences between per cents with varying *N*s were estimated from a nomograph prepared by N. Fattu, University of Indiana.

C. RESULTS

The general intent of these experiments is to determine the effects of induced sets and trait information upon the formation of impressions of persons. More specifically, we are concerned with the effects of occupational category information upon information of personality attributes in formed impressions of these persons. This is achieved by varying set instructions with stimulus traits kept constant, varying stimulus traits with sets constant, and varying both sets and stimulus traits.

1. *Experiment I*

The first experiment attempts to establish the influence of sets using as a reference point the approach taken by Asch (1). Asch reports that presenting a list of personality attributes or traits to Ss with instructions to form an impression of a person results in a unified and internally consistent impression. He also observes that varying some traits has a greater effect upon the impression than varying others (central as contrasted with peripheral traits). We have employed the Asch stimulus attributes, varied them in the same manner, but preceded their presentation by the introduction of occupational sets. In the first experiment the sets are "policeman" (group A) and "physicist" (group B), and the presentation of stimulus traits includes *warm* for one group, *cold* for another, and one stimulus trait group contains neither warm nor cold. The first analysis is a comparison of the impressions generated by the various stimulus trait conditions within each occupational set. Of 36 adjective response comparisons to the *warm-cold* contrast under different set conditions, 22 are significant when the set is "policeman," 19 when it is "physicist." This is consistent with the Asch finding concerning the effect of variation of a central trait (Table 1).

TABLE 1
NUMBERS OF SIGNIFICANT RESPONSE DIFFERENCES† TO OCCUPATIONAL SETS WITH VARYING
STIMULUS-TRAIT PRESENTATIONS

Occupational set	Comparisons of responses to varied presentations*						Response comparisons (N)
	Warm vs. cold	Warm vs. neutral	Cold vs. neutral	Warm vs. occup.	Cold vs. occup.	Neutral vs. occup.	
Policeman	22	6	15	19	23	14	36
Physicist	19	8	12	14	19	3	36

† $p < .05$.

* Warm = stimulus-trait group including *warm*. Cold = stimulus-trait group including *cold*. Neutral = stimulus-trait group with neither *warm* nor *cold*. Occup. = occupational set responses (with no stimulus-trait presentation).

When the responses to *warm* and *cold* stimulus traits are contrasted with the responses to the *neutral* stimulus group there are striking differences. With both occupational sets there are appreciably more significant differences in response to *cold* than to *warm* (policeman set: 15 cold, six warm; physicist set: 12 cold, eight warm). This suggests there is considerably more difference in response to *cold* than there is to *warm* irrespective of set condition, although some sets may induce greater difference from others.

If we compare further the occupational set-plus-trait responses to occupational set responses alone we can assess the effect of trait information above that of the set effect. In Experiment I this contrast shows that the number of significant differences approximates those of the *warm-cold* comparison itself (policeman: warm/occupational set contrast = 19, cold/occupational set = 21; physicist: warm/occupational set = 14, cold/occupational set = 19) (Table 1). In another comparison, between the neutral stimulus condition and the set condition there are 19 significant differences for the policeman contrast, 3 for the physicist! Here the comparison is intended to demonstrate the effect of the stimulus traits (minus the central traits) over and above the effect of set itself, and the resultant differences are great.

These results show that the effect of occupational set alone is considerable in influencing the response to the stimulus traits. With the policeman set, having *warm-cold* among the stimulus-traits generates many differences in impression, but with the physicist set the differences are negligible. It is also clear that the effect of *cold* is much greater in provoking impression differences than *warm*, irrespective of set.

An examination of response ranks was undertaken to discover what *warm* and *cold* do in the impressions. The first two response ranks in the policeman-set impression are occupied by *important* (69 per cent) and *reliable* (65 per cent). Adding stimulus traits (without *warm* and *cold*) reduces response to *important* to 20 per cent and increases *reliable* to 97 per cent. When *cold* is added to the stimuli it leaves unchanged the response to *reliable* (96 per cent) but adds significantly to *important* (57 per cent). The introduction of *warm* significantly depresses *important* (25 per cent) but does little to *reliable* (97 per cent). Though these do not describe all the changes that take place, they are representative. The introduction of *warm* and *cold* serves to depress, enhance or leave unaffected the influences of other attributes.

The results thus far have dealt with comparisons between stimulus conditions *within* each occupational set. Table 2 indicates the result when responses to occupational sets under different stimulus conditions are compared. Con-

TABLE 2
NUMBER OF SIGNIFICANT RESPONSE DIFFERENCES[†] IN OCCUPATIONAL SET COMPARISON
WITH SAME STIMULUS TRAIT PRESENTATION

Occupational set comparison	Stimulus-trait presentation*				Response comparisons (N)
	Warm	Cold	Neutral	Occup.	
Policeman <i>vs.</i> Physicist	4	13	7	15	36

[†] $p < .05$.

* As in Table 1.

trasting the responses to the physicist and policeman sets yields the greatest difference in impression (15 significant differences). The introduction of the neutral stimuli reduces the significant differences by half. (They are not in truth "neutral.") The addition of *warm* reduces them further, but *cold* only serves to increase them to about the level of the occupational set differences themselves. In general, the effect of *warm* is to minimize differences, *cold* to maximize them.

There are some further differences (though not contradictions) in the present results from Asch's. Table 3 indicates the responses to the same check-list items under the different set-trait conditions. Although the differ-

TABLE 3
COMPARISON WITH ASCH CHECK-LIST RESPONSES
Warm-cold contrast (in per cents)

Check list traits	Warm			Cold			Neither	
	Asch Exp. I	Police- man set	Physi- cist set	Asch Exp. I	Police- man set	Physi- cist set	Police- man set	Physi- cist set
1. Generous	91	40	26	8	10	6	37	18
2. Wise	65	48	44	25	35	20	45	59
3. Happy	90	48	44	34	34	14	28	15
4. Good-natured	94	72	51	17	15	6	31	15
5. Humorous	77	21	9	13	10	3	14	6
6. Sociable	91	59	67	38	18	6	40	15
7. Popular	84	38	46	28	17	8	22	12
8. Reliable	94	91	96	99	96	79	97	90
9. Important	88	25	46	99	57	58	20	53
10. Humane	86	59	55	31	34	15	45	43
11. Good-looking	77	10	9	69	29	12	2	15
12. Persistent	100	61	76	97	85	74	62	81
13. Serious	100	51	74	99	90	62	77	90
14. Restrained	77	17	28	89	74	55	25	65
15. Altruistic	69	14	17	18	17	0	11	21
16. Imaginative	51	8	32	19	7	24	8	31
17. Strong	98	63	48	95	81	46	48	46
18. Honest	98	68	59	94	82	50	65	56

ences in frequency are due to instruction differences (a forced choice in the Asch case, a free choice in the present), some comparisons are possible. For one, the ranking of responses is different. This difference is due to the effects of set. In the Asch experiment, *cold* depresses the response to specific qualities in all but three instances. In the present study *cold* increases the response per cent in nine cases with the policeman set and three with the physicist. In the Asch study, in all instances, the neutral trait condition responses lie (in per cent) somewhere between the *cold* and the *warm*. Under set conditions, however, there are seven instances for the physicist, and five for the policeman when the neutral trait response is outside the limits of the warm-cold response frequencies. In the present instance, the interaction of set with the neutral stimulus terms creates a *colder* or *warmer* impression than either the *cold* or *warm* terms themselves. We shall have occasion to refer to this interaction process again.

The remaining experiments deal with variations in occupational set and to some extent variation in stimulus-traits.

2. Experiment II

We have anticipated that induction of an occupational set would act in a selective fashion upon new information about a person. There would be selective emphasis on traits consistent with the set and either inattention or repression of irrelevant or incompatible information. To demonstrate this, half of the stimulus-traits (three) in Experiment II were selected to be consistent with one occupational set (A), the remaining half consistent with the other occupational set (B). We assumed that the interaction between induced set and the set-relevant traits would result in more clearly defined impressions than when traits were unselected for this purpose. The results do not bear this out. The impression differences are similar to those obtained in Experiment I. In fact, in Experiment II the introduction of the stimulus-traits *reduces* somewhat the differences between impressions. (The sets used are the same as those of Experiment I.)

In Experiment II, interaction effects are evident as before. The stimulus-traits which are policeman-related affect the physicist impressions, making the physicist impression more "masculine" and "assertive." The policeman impression, however, is affected very little by the addition of the physicist-related traits. This is a unidirectional interaction. In later experiments the effects are mutual.

TABLE 4
SIGNIFICANT RESPONSES (IN PER CENTS) TO VARYING SET AND STIMULUS-TRAIT
COMPARISONS

Occup. Set I	Set I	Occup. Set II	Set I <i>vs.</i> Set II		Set I Traits <i>vs.</i> set	Set II Traits <i>vs.</i> set	Response comparisons (N)
			Traits <i>vs.</i> traits	Set <i>vs.</i> set			
Exp. 2	Physi- cist	Police- man	43	53	37	40	32
Exp. 3	Lawyer	Account- ant	36	58	50	61	36
Exp. 4	Account- ant	Lawyer	63	61	36	58	36
Exp. 5	Librar- ian	Model	55	66	55	22	36
Exp. 6	Reporter	Factory worker	47	75	41	43	36
Exp. 7	Account- ant	Reporter	23	62	43	57	56

3. Experiments III and IV

In Experiments I and II the stimulus-traits are essentially "compatible" (i.e., *complementary and not contradictory*) even though in Experiment II they are set-relevant. In Experiments III and IV we contrast the effects when the stimulus-traits contain incompatible (Experiment III) and compatible (Experiment IV) terms. We anticipated that where there are incompatible traits the differences in impression are accentuated. The result, in fact, is opposite. As a base for comparison, the contrast between *occupational sets* gives practically the same proportion of significant differences (58 per cent and 61 per cent in Experiments III and IV). The effect of the addition of stimulus-traits is such that there is a 27 per cent *reduction* in differences between impressions by virtue of having incompatible rather than compatible traits. Compatibility-incompatibility may not be alone in accounting for this result; it may be the result of differential interaction of traits and set. In Experiment III the accountant set produces response differences which are 64 per cent significant as against 50 per cent for lawyer set. In Experiment IV, on the other hand, the situation is reversed, with 58 per cent of lawyer impression differences significant and 36 per cent for the accountant. The traits in each case are interacting with the sets differently.

Returning to the compatibility-incompatibility question, we find another possibility. Trait incompatibility may maximize interaction effects and thereby reduce differences between impressions. Interaction effects among traits

act to increase similarity between set impression by intruding qualities "alien" to the set impression by the force of the connotations or meaning associated with the trait name. The more mutual the effect, the greater the similarity between the impressions, although this is apparently a function also of the traits themselves. The more incompatible, the greater the "intrusion" and the less difference between impressions.

4. Experiment V

In Experiments I through IV the sets are all of male occupations. Our interest in Experiment V is to assess the effects of female occupation sets when the stimulus attributes are "incompatible." The sets are "model" and "librarian." The impressions from sets alone are considerably different (66 per cent of check list responses are significantly different), and with the introduction of traits they remain different. As in the prior experiments, the effects of traits upon sets differ. Here the traits make the model *stronger*, more *intelligent*, less *daring* and less *flirtatious*. The effect upon the librarian impression is even greater. The impression of a librarian is of a person who is *intelligent*, *disciplined*, *serious* and *plain*. The influence of the traits is to make her *polite*, *feminine*, *intelligent*, *sociable* and *confident*. In the present experiment, as before, it is apparent that the set does not act purely selectively on the traits. Interaction effects have a direct bearing on the impression. It was hypothesized in the prior experiment that interaction is maximized when traits are incompatible. Here the same effect is observed. The introduction of incompatible traits reduces the differences in impressions (from 66 per cent with sets alone, to 55 per cent with traits). Here the librarian set is "over-powered" by the model-relevant traits. (There is a 22 per cent change in model impression; a 55 per cent change in the librarian.)

Expectations based upon prior knowledge of the occupation and the new information (stimulus-traits) are apparently in a dynamic relationship with both sets and traits contributing to the impression.

5. Experiments VI and VII

The occupations treated in the already described experiments are in some cases of different levels (i.e., prestige, social status, etc.). In Experiment VI the influence of occupations of widely separated levels upon impressions is sought. The impressions created by the sets (factory worker, reporter) are more widely apart than we have found in any of the other experiments. (Seventy-five per cent of the response differences are significantly different.) The introduction of incompatible traits again reduces the differences in im-

pressions (from 75 per cent to 47 per cent). As in the prior experiments, the attributes affect the sets differentially.

In Experiment VI, reporter is contrasted with factory worker. In Experiment VII, reporter is contrasted with accountant. The same reporter-relevant traits are used in each experiment, paired with factory worker traits in one case and accountant traits in the other. (In Experiment VII, the check list is longer.) As already indicated there is a 75 per cent difference between the reporter and factory-worker set impressions. There is a 62 per cent difference between the reporter and accountant impressions, indicating the impressions to be somewhat more alike. Would the introduction of traits result in impression differences consistent with the differences in set impression? With the introduction of traits there is a 47 per cent impression difference between reporter and factory worker and a 23 per cent difference between reporter and accountant. From this we are tempted to generalize that the relationship of "distance" between occupational set impressions and "distance" between impressions based on interaction of set and traits is inverse (i.e., the greater the "distance" between sets the less the influence of traits in reducing the "distance" between impressions). This generalization was tested with the data from Experiment III and Experiment VII. The accountant set is common to Experiments III and VII. It is varied with reporter in VII and lawyer in Experiment III. The significant differences between accountant-reporter impressions is 62 per cent, and 50 per cent between accountant-lawyer impressions. With introduction of traits the difference is 23 per cent between the accountant-reporter impressions and 30 per cent between lawyer-accountant impressions. The relationship then is no longer inverse and the generalization is contradicted. We conclude that "distance" (measured by per cent of significant differences between occupational sets) is not sufficient to determine the effect of introducing trait information. Our prior results suggest that the nature of traits themselves and characteristics of sets other than their level will determine the "distance" or difference between impressions.

D.^a DISCUSSION

The structuralist account of impression formation, as exemplified by the Asch view, depends upon organizational processes that unite trait characteristics into a unified internally consistent impression. The directly perceived unified impression results from the operation of Gestalt-like principles and although the content of the experience is not ignored its effect is determined by the organization principles.

The key to Asch's view is the concept of "centrality." For him, the centrality of a trait is determined by the relationship of the trait to others with which it is associated; centrality results from an internal ordering among traits. The character of the trait is determined further by the requirements established for it by associated traits. The content and functional value of the trait changes with its context, so that a trait which is central to one person may be secondary to another.

In the present study, the traits associated with a given trait are not sufficient to determine the centrality of the trait or the total impression. Rather, the perceiver's expectations and knowledge are active in the impression forming process. This is shown by the result of inducing an occupational set in the perceiver. Instructing Ss with regard to a person's occupation is sufficient to induce an impression of a person, and different occupations yield significantly different impressions. We may view these impressions as cognitions which are available when other information about the person is introduced. If the introduced information is Asch-type trait-terms, we may then look to the impression which results from the introduction of this information. The impressions generated in the present experiment are dissimilar to Asch's. Likewise, varying a "central" trait in a manner similar to the Asch Experiment but with prior (occupational) information yields different results. We suggest that the impression induced by occupational information sets cognitively interacts with introduced trait information to produce the impression the perceiver utilizes as the basis for his own behavior.

With induced occupational sets the "central" traits *warm* and *cold* have different effects. In the present experiment *warm* does little to the set impression while the effect of *cold* is considerable. Although these differences exist irrespective of the set impressions, greater impression differences are produced with some sets. In addition, *warm* acts to minimize differences between sets, *cold* to maximize them. In these circumstances, the centrality of the trait is not established solely by the content of the traits associated with it but also by the perceiver's cognitive system. In the case of occupational sets, the contents of these are learned, and undoubtedly learned differently in unlike social contexts.

It is Asch's view, too, that the centrality of a trait is not absolute, that its status is determined by the context in which it appears. What the present data show is that the context includes the content of the perceiver's cognitions. It derives from the perceiver's perception of the perceived's role as well as his idiosyncratic characteristics, as Tagiuri (9) suggests. In this case the ability to go "beyond the given" is possible because the basis for such

inference is supplied by the complex associations built around occupational identifications.

The structuralist will still argue, however, that the organizational basis of centrality is not denied because the occupational impression itself must be accounted for. He might describe the present experiment as one in which an organized occupational impression interacts with an impression generated by new information, or with the information itself, yielding a newly organized impression. The data of the present study do not deny this possibility.

We had supposed that cognitions represented by the occupational impression would act selectively upon some of the trait information and serve to "reject" or "suppress" nonrelevant information. This is not entirely so. The nonrelevant information either directly alters the impression or acts to enhance or depress aspects already there.

We have found, too, that incompatibility between traits (*viz.*, those that are contradictory in meaning for an impression) increase interaction effects among traits and the result is to reduce differences between set impressions rather than increase them. The more one desires to maximize differences between set impressions, the more bland and passive the introduced trait information need be. What this apparently does is permit the divergent sets to dominate the ultimate impressions, although the ultimate outcome in an impression of the set-trait interaction will depend on the content associated with the occupational category and the contents associated with the trait terms. In the experiments we have sought for evidence of the dominance of one over the other, and it appears that both sets and contents may be ascendant. Table 5 indicates for one experiment the origin of the ranking impression responses. It is apparent that for this particular set-trait combination the major influence comes from the traits. Among the "occupational set plus trait" responses, trait responses appear with greater frequency (*i.e.*, are higher in the response hierarchy) than set responses. Perhaps more significantly, there are among the five ranking responses a proportion of responses (two for accountant, one for lawyer) which do not appear in the top ranks of either the trait or set impressions.

This suggests that interactions are not simply additive. A low response to an occupational set added to a low response to a series of stimulus traits does not of necessity yield a low response to the combination, nor a high one. In most cases it is low; in some cases it is high.

The data relevant to occupational set impressions suggest the richness and complexity of cognitions associated with occupational terms. It suggests their powerful influence in person perception. If a perceiver has such

TABLE 5
CHECK-LIST RESPONSE RANKS TO INDUCED OCCUPATIONAL SET AND STIMULUS-TRAIT
PRESENTATION SINGLY AND IN COMBINATION (EXP. III)

Rank	Stimulus trait** alone		Occupational set alone		Traits and occupational set	
	Group A	Group B	Lawyer	Accountant	Lawyer	Accountant
1	Sociable (52*)	Temperamental (57)	Confident (88)	Painstaking (77)	Argumentative (78)	Argumentative (61)
2	Blustery (50)	Sociable (47)	Shrewd (80)	Shrewd (64)	Temperamental (63)	Temperamental (57)
3	Temperamental (49)	Argumentative (46)	Sociable (76)	Sociable (63)	Blustery (62)	Weak (53)
4	Argumentative (47)	Blustery (42)	Argumentative (73)	Polite (61)	Assertive (58)	Unpopular (51)
5	Impulsive (41)	Painstaking (36)	Strong (50)	Confident (61)	Sociable (52)	Blustery (50)
		Impulsive (36)				

* Per cent of persons responding.

** Stimulus traits: talkative—rigid—emotional—unimaginative—outspoken—efficient.

knowledge of a person's status it is bound to generate a complex set of expectations of the actor. In many aspects the actor's own characteristics may have to be more powerful to overcome or modify such expectations, particularly if they are incongruent with them. If the actor's personal characteristics are bland or ambiguous the occupational expectations will override them. As one would expect, expectations differ greatly from one occupation to the next, as a function of the level of the occupation, the field, and sex-typed associations.

E. SUMMARY AND CONCLUSIONS

The purpose of this investigation is to test the effects of variation in set induced prior to presentation of varied personality traits upon consequent person impression.

The Ss in the experiments are 451 second- and third-year students in a large metropolitan liberal arts college.

Sets are induced in a series of experiments by instruction that the persons, to whom a group of Asch stimulus traits refer, are in particular occupations. Impressions are determined from responses to a check list and differences between impressions are assessed from the number of significant response differences to check-list terms.

The results reveal that, as would be expected, impressions generated by sets alone differ from impressions generated by stimulus-traits alone, and impressions generated by the articulation of sets and traits differ from the independent impressions of each. The proportional contribution of sets and traits to the ultimate impression from their combination depends upon the "power" and the content associated with particular sets and traits, and does not suggest the operation of an *additive* impression-forming process.

Varying a trait (i.e., *warm*, *cold*, and *neither warm nor cold*) with different sets yields significantly different impressions. Although the impressions differ as a function of set, *cold* has a greater effect upon varying an impression than *warm* (irrespective of set). In addition, *cold* acts to accentuate differences between set impressions, *warm* to reduce differences between them.

Incompatibility between stimulus traits reduces differences between set impressions. We suggest this result is due to maximized interaction effects.

REFERENCES

1. ASCH, S. E. Forming impressions of personality. *J. Abn. & Soc. Psychol.*, 1946, **41**, 258-290.
2. BRUNER, J. S., & TAGIURI, R. The perception of people. In G. Lindzey (Ed.),

Handbook of Social Psychology: Vol. II. Cambridge, Mass.: Addison Wesley, 1954. Chap. 17.

3. GAGE, N. I., & CRONBACH, L. J. Conceptual and methodological problems in interpersonal perception. *Psychol. Rev.*, 1955, **62**, 411-422.
4. GOLLIN, E. S. Organizational characteristics of social judgment: A developmental investigation. *J. Personal.*, 1958, **26**, 139-154.
5. ———. Cognitive dispositions and the formation of impressions of personality. In J. G. Peatman and E. L. Hartley (Eds.), *Festschrift for Gardner Murphy*. New York: Harper, 1960.
6. HAIRE, M., & GRUNE, W. F. Perceptual defenses: Processes protecting an organized perception of another personality. *Hum. Relat.*, 1950, **3**, 403-412.
7. KETLEY, H. H. The warm-cold variable in first impressions of persons. *J. Personal.*, 1950, **18**, 431-439.
8. PIAGET, J. *The Origins of Intelligence in Children*. New York: International Univ. Press, 1952.
9. TAGIURI, R. Introduction in R. Tagiuri and L. Petrullo (Eds.), *Person Perception and Interpersonal Behavior*. Stanford: Stanford Univ. Press, 1958.
10. WERNER, H. *Comparative Psychology of Mental Development*. Chicago: Follet, 1948.
11. WISHNER, J. Reanalysis of "impressions of personality." *Psychol. Rev.*, 1960, **67**, 96-112.

Department of Education
Brooklyn College
Brooklyn 10, New York

EXPERIMENTALLY INDUCED PSYCHE- AND SOCIO-PROCESS IN SMALL GROUPS*

Russell Sage College

FRANK M. CALABRIA

A. PROBLEM

Jennings (3) has identified and defined a group process variable by which groups can be differentiated along a continuum in being either predominantly psyche- or socio-process oriented in interaction. Groups which are primarily psyche-process or person-oriented, referred to as psyche groups, have a structure which contains many mutual choices with a relatively narrow distribution of choice scores. Groups which are predominantly socio-process or goal-oriented, referred to as socio-groups, have a group structure which contains relatively fewer mutual choices, with wider networks between members. Association in psyche-groups, such as in informal play groups, is primarily affect-centered and is considered to be an end in and of itself; in socio-groups, such as action groups, the association is predominantly problem-centered and is, in part at least, a means to an end.

While Coffey (1) has used Jennings' psyche-socio continuum to locate existing groups with different goals and purposes, little research has been done experimentally to create groups which reflect the characteristics of either psyche- or socio-groups.

The purpose of this study was to test whether by varying the orientation and conditions under which group members interacted in two organized recreation groups in social dancing, one group could be made to shift its emphasis in group process so that at the end of an eleven week course, it would predominantly reflect the characteristics of psyche-groups, while the other would move toward accepting the characteristics of socio-groups. In the psyche-oriented group, members were instructed to choose other group members they would enjoy getting to know better as persons through small discussion-group meetings. Socio-oriented group members were instructed to choose other group members they thought might help them to improve their dancing skill in small dance-work group meetings.

It was hypothesized that an organized recreation group could be made to

* Received in the Editorial Office on June 26, 1961.

shift its emphasis in group process toward either a psyche- or socio-group direction by varying the orientation and conditions under which group members interacted.

Evidence of a shift in process would be manifested if, at the end of an eleven-week course in social dancing, the psyche- and socio-oriented group reflected in its group structure the following changes: (a) the number of reciprocal choices would increase in the psyche-oriented group but not increase in the socio-oriented group; (b) the distribution of choices, e.g., the number of choices received, would increase in the socio-oriented group but not in the psyche-oriented group; (c) the intensity of choices given in the psyche-oriented group would increase, but would not increase in the socio-oriented group; (d) the "attraction to the group" would be greater in the psyche-oriented group than in the socio-oriented group; and (e) the improvement in dancing skill would be greater in the socio-oriented group than in the psyche-oriented group.

B. PROCEDURE

1. *Subjects*

The subjects used in this study were 80 undergraduate students attending New York University who had volunteered to participate in a free course of dance instruction. Students were randomly assigned to two experimental groups, a psyche-oriented group and a socio-oriented group, each group composed of 40 students, 20 boys and 20 girls. Both groups contained students pursuing majors in the sciences, education, and business professions. With few exceptions, students were unknown to each other before the experiment began.

2. *Psyche-Oriented Group*

Members in the psyche-oriented group were instructed to choose those members they would enjoy getting to know better as persons in small personal discussion group meetings.

The sociometric questionnaire for choosing members for personal discussion groups included the following instructions:

The purpose of your Personal Discussion Group will be to compare with the members of your group, your feelings and attitudes toward dancing, what you consider is furthering or interfering with your personal progress in dancing. In addition, you may discuss whatever else you may like or want to talk about, yourselves for example.

Bear in mind that the choices which you make for your Personal

Discussion Group should be for persons to whom you are personally attracted or whom, you feel, you would like to know better. These choices would be for persons with whom you could feel sympathetic and at ease. You may feel that if you were given the opportunity to know them better, you would enjoy the discussions very much.

Personal discussion groups were left to function as leaderless discussion groups though discussion topics were distributed to subgroup members during the first few meetings to serve as icebreakers as well as to stimulate the interaction between subgroup members. Members were asked, for example, whether it was ever legitimate for a girl to refuse a boy a dance, when was a good-night kiss given, how and why people choose other people, etc.

Subgroup members were informed, however, that such questions were merely suggestive and that they could discuss them or not, as they saw fit. The group leader did not participate in any subgroup discussions.

3. *Socio-Oriented Group*

Members in the socio-oriented group were instructed to choose those they thought might help them to improve their dancing skill through small dance-work group sessions.

The sociometric questionnaire for choosing members for dance-work subgroups included the following instructions:

The purpose of your Dance Work Group will be to help each other improve his or her dancing skill, for it seems that we learn better in small groups. In this Dance Work Group you can try out the steps which you have learned in class or you can practice any of the other skills in dancing, such as leading and following. In other words, in this group, you will be learning from each other and you will be helping each other to learn.

Bear in mind that the choices which you make for your Dance Work Group should be persons with whom you really enjoy learning to dance. Perhaps these choices may be of people you feel can help you improve your dancing ability; someone from whom you would take constructive criticism, or people whom you, in turn, might enjoy helping with their dancing difficulties.

Subgroups were left to function as small workshop groups where the members who had difficulty with particular steps or step patterns could work out these portions of the steps which caused them difficulty. Since two subgroup members sometimes choose the same individual in a subgroup, a rotation system was used to insure that each group member would dance with the member he had chosen at some time during the subgroup meeting.

While the group leader was available during subgroup meetings to clarify any problems in executing steps which might arise, he did not participate directly in any subgroup meetings.

4. *Sociometric Choices*

Members of the psyche-oriented and socio-oriented group met for two hours each week for 11 weeks of a school semester. A variety of interaction techniques (dance mixers) and devices (wearing name plates) were used in both groups to provide a basis upon which choices could be made for particular kinds of associations which were differently emphasized in each group.

During the first three class meetings, conducted alike in both groups, members were reminded of the choices they would make for members of their subgroups. At the close of the third class session, a presociometric test was administered to each group. Members were asked to make five choices for their subgroup and to number their choices in order of intensity of preference, such that a rating of "1" represented the most intense preference, a rating of "5," least preference. It was possible, however, to rate all five choices as first choices or as fifth choices if the members chosen could not be readily differentiated in terms of intensity of preference. Choices made on the presociometric test were used to form five subgroups of eight members each, four boys and four girls, which met for approximately one half hour each class period for four class meetings. In almost all instances, members were given their first or second choice preference. Members were asked not to divulge to other group members whom they had chosen so that they might feel free to change their choices, if they wished, at a later time.

A second sociometric test, identical in content, was given at the close of the seventh class session to enable members to confirm, change, or alter in part their initial choices. Subgroups were remade beginning with the eighth class meeting and also met for four sessions. A postsociometric test was given at the close of the eleventh session. Members were again instructed to make choices for subgroups were the course to continue as an advanced class. To measure change in choices, only pre- and postsociometric choices were included in the analysis of scores.

The course terminated with the eleventh class session though members of both groups were invited to a joint end-term social held the following week.

5. *Attraction to Group*

Libo (5) has suggested that various "locomotion criteria" can be used to measure valence or "attraction to group." "Locomotion criteria" are defined operationally as behavioral expressions, e.g., attendance, choice as to frequency of meetings, staying in or leaving the group, etc., reflecting the desire to remain in the group and to be an active member. These locomotion tests, he notes, provide a more continuous range of attraction behavior and seem to correspond more closely to the conceptual definition of "attraction to group," than merely verbal reports or by using a questionnaire device.

A number of locomotion criteria were used to measure "attraction to group" in this study: number of absences during the course and attendance at the end-term social; number volunteering for additional class sessions and for continuation of classes as an advanced class.

6. *Dance Skill Evaluation*

A variety of standard social dances were learned during the eleven week course of instruction including the foxtrot, lindy, cha cha cha, mambo, and tango. To help maintain student interest, members received instruction in two social dances each class session.

During the first class meeting, members were randomly paired into couples to test their dancing skill. Three judges, prominent in the field of Dance Education, using the Social Dancing Skills Rating Scale, rated each couple on a five-point scale in five categories: rhythm, posture, execution, style, and variety of steps. Each couple's performance was judged on two standard social dances. At the last class meeting, members were again paired with the same person they had originally danced with in the initial test and were rated on the same dances by the three judges who had made the original ratings.

The investigator conducted both groups to insure uniformity of content and student-teacher rapport. Though aware that deliberate or "unconscious" bias might tend to favor influencing outcome measures, e.g., in dancing skill or "attraction to group," it was felt these differences might be increased if different instructors worked with each group.

C. RESULTS

1. *Reciprocal Choices*

To analyze the results, the sociometric choices were first converted to separate matrices, as described originally by Forsyth and Katz (2). In this way it was possible readily to determine the frequencies of two-person recipro-

cation, number of choices received, and level of choice intensity on a pre- and postsociometric test.

To reflect a shift in process to a psyche- or socio-oriented direction, it was predicted that the number of reciprocal choices would increase in the psyche-oriented group but not in the socio-oriented group. The number of reciprocal choices on the presociometric test in the psyche- and socio-oriented group were 80 and 78 respectively; at the end of the course, on the postsociometric test, reciprocal choices increased to 106 in the psyche-oriented group and to 84 in the socio-oriented group.

Table 1 shows the mean of the paired differences between reciprocal choices between pre- and postsociometric tests in the psyche-oriented group to

TABLE 1
COMPARISON BETWEEN MEAN DIFFERENCES IN THE NUMBER OF RECIPROCAL CHOICES
RECEIVED BY MEMBERS IN THE PSYCHE-ORIENTED AND SOCIO-ORIENTED
GROUP ON PRE- AND POSTSOCIO-METRIC TEST

	<i>N</i>	Pre test	Post test	Diff.	S_d^2	<i>t</i>	<i>p</i>
Psyche	40	2.00	2.65	.65	2.612	2.15	< .05
Socio	40	1.95	2.10	.15	2.797	.57	> .05

be equal to .65, which yield a *t* of 2.15 significant at the .05 level; in the socio-oriented group, the mean of the paired differences was equal to .15 with an accompanying *t* of .57, which is not statistically significant.

The prediction that the number of reciprocal choices would increase in the psyche-oriented group and not in the socio-oriented group was confirmed.

2. Choice Distribution

Psyche-groups, it has been reported (3), in addition to containing many mutual choices, have a relatively narrow distribution of choice scores, e.g., members receive relatively few choices, while socio-groups, with fewer mutual choices, have wider choice networks.

It was predicted that the distribution of choices received would increase in the socio-oriented group though not in the psyche-oriented group between the pre- and postsociometric test. Table 2 shows the comparison between the number of choices received on the presociometric test in both groups. A chi square of .250 was not found to be significant. The two experimental groups did not differ in the number of choices that were initially received. Similarly on Table 3, the distribution of choices in both groups on the postsociometric test was not found to differ significantly from each other, with the chi square equal to .054.

TABLE 2
COMPARISON OF NUMBER OF CHOICES RECEIVED IN THE PSYCHE-ORIENTED
AND SOCIO-ORIENTED GROUP ON PRESOCIOMETRIC TEST

Number of choices	Psyche-oriented	Socio-oriented	Both
0-6	30 (29)	28 (29)	58
7-13	10 (11)	12 (11)	22
Totals	40	40	80

$\chi^2 = .250$

TABLE 3
COMPARISON OF NUMBER OF CHOICES RECEIVED IN THE PSYCHE-ORIENTED
AND SOCIO-ORIENTED GROUP ON POSTSOCIOMETRIC TEST

Number of choices	Psyche-oriented	Socio-oriented	Both
0-6	26 (26.5)	27 (26.5)	53
7-13	14 (13.5)	13 (13.5)	27
Totals	40	40	80

$\chi^2 = .054$

The number of choices received did not increase in either the socio- or psyche-oriented group between the pre- and postsociometric test. This result may be explained, in part, by the relative stability of subgroup membership in both groups during successive administrations of the sociometric test. Members tended to choose those they had initially met in their subgroups so that few individuals received choices from a large number of members outside of their immediate subgroups. This subgroup stability would also help to explain the increase in reciprocal choices in both groups.

3. Choice Intensity

It was hypothesized that in the psyche-oriented group, where members were person-directed, choice preferences between members would increase in intensity between the pre- and postsociometric test, e.g., more members would be chosen as first and second choices than as fourth or fifth choices. In the socio-oriented group, where members were goal-directed, it was predicted that choice intensity would not increase.

Table 4 shows the mean of the paired differences between weighted scores between the pre- and postsociometric test in the psyche-oriented group to be equal to -1.67 , reflecting an increase in choice intensity which yields a t of -3.39 significant at the .01 level; in the socio-oriented group, the mean is equal to $+1.47$, reflecting a decrease in choice intensity with a t of $+2.56$ significant at the .05 level.

As the number of first and second choices increased between the pre-

TABLE 4
COMPARISON OF CHOICE INTENSITY ON PRE- AND POSTSOCIOMETRIC TEST
IN PSYCHE-ORIENTED AND SOCIO-ORIENTED GROUP

	<i>N</i>	Pre test	Post test	Diff.	S_d^2	<i>t</i>	<i>p</i>
Psyche	40	13.47	11.80	-1.67	9.66	-3.39	< .01
Socio	40	11.67	13.14	+1.47	13.28	+2.56	< .05

and postsociometric test in the psyche-oriented group, the number of fourth and fifth choices decreased. Conversely, in the socio-oriented group, fourth and fifth choices increased while first and second choices decreased. The prediction that choice intensity would increase between psyche-oriented members and not between socio-oriented members was confirmed.

4. *Attraction to Group*

Members who are most strongly attracted to a group will reflect their interest by regular attendance at meetings. It was predicted that psyche-oriented group members would manifest greater attraction to their group than would be exhibited by socio-oriented group members to their group. During the eleven-week course, there were 32 absences in the psyche-oriented group and 51 absences in the socio-oriented group. Table 5 compares the distribution of absences of psyche- and socio-oriented group members. A

TABLE 5
COMPARISON OF DISTRIBUTION OF ABSENCES IN PSYCHE-ORIENTED
AND SOCIO-ORIENTED GROUP

Number of absences	Psyche-oriented	Socio-oriented	Both
0	18 (14.5)	11 (14.5)	29
1	16 (14.5)	13 (14.5)	29
2-3	6 (11.0)	16 (11.0)	22
Totals	40	40	80

$$\chi^2 = 6.216$$

chi square was found equal to 6.216 which with 2 *df*, is significant at the .05 level of confidence. We can reject the null hypothesis and state that the groups did differ in the number of absences in each group, and that psyche-oriented members, with fewer absences, reflected greater attraction to their group than did socio-oriented members. The results found were in the predicted direction.

5. Dance Skill

It was predicted that members in the socio-oriented group, meeting in subgroups goal-oriented toward improving member skill, would show a greater improvement in dancing skill between Social Dancing Skill Test 1 and Test 2 than psyche-oriented members who met in discussion subgroups. Using an analysis of covariance to adjust pretest scores, in Table 6, the *F* ratio between groups was found equal to .46, which with 1 and 29 *df*, is not statistically significant. Psyche- and socio-oriented group members

TABLE 6
ANALYSIS OF VARIANCE AND COVARIANCE OF DANCING SKILL SCORES OBTAINED
ON TEST 1 AND TEST 2 IN PSYCHE-ORIENTED AND SOCIO-ORIENTED GROUP

Source of variation	<i>df</i>	<i>SS</i>		Cross products	Adjusted analysis			<i>F</i>	<i>p</i>
		Test 1	Test 2		<i>df</i>	<i>SS</i>	<i>MS</i>		
Between	1	552.4	457.9	502.9	1	244.5	244.5	.46	> .05
Within	30	6,359.8	14,038.9	9,909.6	29	15,440.8	532.4		
Totals	31	6,912.2	14,496.8	10,412.5	30	15,685.3			

did not significantly differ in the amount of skill attained at the end of the course when initial test performance was equated in both groups.

Statistically significant gains in dancing skill were made, however, in both groups. Table 7 shows the comparison of mean differences between

TABLE 7
COMPARISON OF MEAN DIFFERENCES IN DANCING SKILL SCORES BETWEEN TEST 1
AND TEST 2 IN PSYCHE-ORIENTED AND SOCIO-ORIENTED GROUP

	<i>N</i>	Test 1	Test 2	Diff.	S_d^2	<i>t</i>	<i>p</i>
Psyche	17	123.9	188.6	64.7	617.22	10.7	< .01
Socio	15	132.3	181.1	48.8	2141.46	4.1	< .01

dancing skill performance on Test 1 and Test 2 in the psyche- and socio-oriented group. The *t* test computed for both groups was significant at the .01 level.

D. DISCUSSION

It was hypothesized that an organized recreation group in social dancing could be made to shift its emphasis in group process to either a psyche- or socio-group direction by varying the conditions under which members interacted as well as the orientation given group members.

In the psyche-oriented group, shift in process was manifested by a highly

mutual interindividual choice expression at the end of the eleven week course along with an increase in choice intensity between group members. The number of choices between members did not increase. Jennings (3) found in the informal, leisure-choice structure of psyche-groups, that being widely acquainted and accepted by many people was not of central importance. It was the kind and quality of relationship, e.g., mutual as compared with unreciprocated, rather than the sheer quantity of relationship that differentiated psyche- from socio-groups. The results found in this study parallel those reported by Jennings.

In addition, psyche-groups were found to differ from socio-groups by the greater attraction members felt toward their group, groups in which members could find a more all-inclusive acceptance of themselves as worthy individuals (4).

In the two experimental groups studied, psyche-oriented group members manifested greater attraction to their group than did socio-oriented members. There were fewer absences as well as fewer dropouts during the course, with larger numbers attending the end-term dance social from the psyche-oriented group. Further evidence of "attraction to group" was found in the greater insistence of psyche-oriented members to continue the course as an advanced class, and in voting unanimously to hold an extra session just prior to the Christmas recess when one had not been scheduled.

Shift in process to a more predominantly socio-process direction was manifest in the socio-oriented group in the relatively fewer reciprocal choices as well as in the decrease in choice intensity between members. The prediction that the number of choices received by members would increase was not confirmed. As noted in an earlier section of this report, meeting in small dance-work subgroups may have narrowed the field of interaction for group members and hence influenced the number of choices received by members.

Socio-oriented group members, who were skill directed and practiced one half hour more each class session in subgroups, did not show greater improvement in dancing skill than did the psyche-oriented group members. Both groups did, however, make significant gains in dancing skill. These results raise an interesting question: Did meeting in small personal discussion subgroups, where member reactions and attitudes toward dancing were explored with those members they felt most closely drawn to as persons, provide the kinds of conditions during the exposure which enabled subgroup participants to feel freer and more relaxed about the skill they were learning? Whyte's study of a street-corner society (6) pointed up how a member's bowling skill could be improved by having group support or decreased when

group support was lacking, e.g., when a member of lower-group status was trying to beat a member of higher-group status in a group match.

The effect of varying the conditions under which interaction took place in the psyche- and socio-oriented group was reflected in the nature of the learning experience members had in their group. In both groups, in answer to a mid- and end-term questionnaire, members reported that their initial choices were based mainly upon physical appearance and overt manifestations of behavior. When subgroups were formed, however, the opportunity to meet in small personal discussion groups to discuss attitudes and express their feelings about dancing or about topics which were of mutual interest and concern, afforded members in the psyche-oriented group a broader basis to make subsequent choices than was available to socio-oriented members.

In the psyche-group, for example, one member wrote:

I think my first method of choosing people for my discussion group was mainly by looks, obvious mannerisms, mode of dress, etc. However, once I got to know them, I found they were different than I thought they were. Some I liked and some I didn't. As the term progressed, several people I thought I would like I didn't. Happily, I found it more opposite.

In the socio-oriented group, however, the opportunity to deepen one's understanding of other members was limited by the conditions under which they met, as reflected in the following response:

Everyone was very intent on doing the steps right and so, few of the boys said much while we danced. It was hard to get to know what was beneath the exterior, except when the boy's personality was really obtrusive.

It is of interest to note that a number of socio-oriented members expressed the need for the opportunity to meet with others on a more personal level. One member wrote:

It would have helped if there was a period before or during the class when we could have just talked and chatted in informal groups.

Members of both groups reflected changes in self-evaluation regarding their ability to master the motor skills involved in dancing:

About myself came the biggest surprise; I happen to learn very slowly, but I was amazed at the swiftness at picking up the steps and the ability to command the rhythm and master it within a short period of time.

Whereas before I would shy away from learning a new step or

practicing on the floor, but now I am always raring to go even when I don't always know what to do.

Psyche-oriented members could, in addition, explore their new-found skill in the social context in which it was used. One boy wrote:

I found out what the girls think at a dance—What if he doesn't ask me to dance; what if I'm too tired to dance; I just don't like his kind; if I refuse him first, how can I ask him to ask me again. Now I'm not aggravated when refused by a girl—I just try my luck again.

Furthermore, in the psyche-oriented group, discussions served as a means by which members could reinforce, change, or alter in part, their initial impressions of other members, as well as become aware of the dynamic nature of the choice process.

The discussions showed me that people are not what their looks seem to indicate. It gave me a greater insight into the friendliness of people, and that, because some people do not seem outwardly friendly, it is because of a shyness more than a snobbishness.

The main factor I learned in our discussions was not to judge people by their looks—GL looked cold, she was not; SD looked nice but was talkative.

Discussions helped to "break the ice." No, my attitudes toward the people didn't change. As I got to know them better, my feelings toward them grew stronger—I felt more attracted to them.

Though beyond the scope of this paper, a more thorough analysis of questionnaire responses, a few of which have been included in the above discussion, does offer evidence that a shift in process, in addition to effecting the choice structure, also effected the learning experience of group members.

E. SUMMARY

Researchers in small groups have attempted to classify groups using different conceptual schema. One such approach forwarded by Jennings, based upon experimentally derived hypotheses, differentiates between two kinds of groups, psyche-groups and socio-groups. It was the purpose of this study to test whether a shift in process could be experimentally induced in organized recreation groups to either a socio- or psyche-group direction by varying the orientation and conditions under which members interacted.

Two organized groups in social dancing, each composed of 40 undergraduate students attending New York University, met for 11 weeks of a normal school semester. Members of one experimental group, psyche-oriented toward person interaction, in addition to meeting in large instructional units, chose members for small personal discussion subgroups to discuss their attitudes and feelings toward dancing and toward other topics

of mutual interest and concern. Members of a second experimental group, socio-oriented toward skill interaction, also met in large instructional units, but chose members for small dance-work subgroups which met for one half hour each class session. Pre- and postsociometric tests were used to measure changes in the number of reciprocal choices, choice distribution, choice intensity, and "attraction to group." Change in members' skill was measured by a pre- and posttest using the Social Dancing Skills Rating Scale.

The hypothesis that recreation groups could be made to shift their emphasis in interaction to either a psyche- or socio-process direction was confirmed. The psyche-oriented group was found to reflect, at the end of the 11 week course, the characteristics of psyche groups—the number of reciprocal choices increased, the distribution of choices remained narrow, along with an increase in choice intensity between group members. Conversely, the socio-oriented group reflected many, though not all, of the characteristics of socio-groups—the number of reciprocal choices did not increase nor did the choice intensity between members increase. The prediction that the distribution of choices would increase was not confirmed. It was suggested that meeting in subgroups to improve skill in dancing may have narrowed the field of interaction for socio-oriented group members and hence influenced the distribution of choices received. In addition, it was found that members in the psyche-oriented group manifested greater attraction to their group than did socio-oriented group members.

Both groups made significant gains in dancing skill. Neither group, however, was found to have achieved larger gains after adjustment was made for pretest performance.

In addition to effecting choice structure, it was suggested that a shift in process presented group members in each group with a somewhat different learning experience.

REFERENCES

1. COFFEY, H. Socio and psyche group processes: Integrative concepts. *J. Soc. Issues*, 1952, 65-74.
2. FORSYTH, E., & KATZ, L. A matrix approach to the analysis of sociometric data: A preliminary report. *Sociometry*, 1946, 9, 340-347.
3. JENNINGS, H. H. Leadership and Isolation. New York: Longmans, Greene, 1950.
4. ———. Sociometric structure in personality and group formation. In S. Mazafer, & M. O. Wilson (Eds.), *Group Relations at the Crossroads*. New York: Harper, 1953.
5. LIBO, L. M. Measuring Group Cohesiveness. Ann Arbor: Univ. Michigan Press, 1953.
6. WHYTE, W. F. Street Corner Society: The Social Structure of an Italian Slum. Chicago: Univ. Chicago Press, 1943.

3 Frantone Lane

Albany 11, New York

PERSONALITY AND ATTITUDES TOWARD JUVENILE DELINQUENCY: A STUDY OF PROTESTANT MINISTERS*¹

Salem, Massachusetts

WILLIAM E. ALBERTS

A. PROBLEM

This is a study of Protestant ministers' attitudes toward juvenile delinquency, and of their theological beliefs. The study has been guided by two hypotheses.

1. *Hypothesis 1*

A minister's attitudes toward juvenile delinquency are related to the relative dominance of authoritarian or supportive tendencies in his personality. If he has authoritarian tendencies, he will conclude that delinquent behavior is caused by the youth's deliberate and wilful disobedience. Consequently, he will subscribe to repressive and punitive forms of treatment which, to him, will serve to correct the youth's stubborn and defiant will. If he possesses supportive tendencies, it is believed that he will tend to view juvenile offenses as manifestations of underlying disturbances in the emotional life of children. He will, therefore, identify with rehabilitative measures that attempt to treat youths on the level of their individual needs.

2. *Hypothesis 2*

What a minister does in his personal contacts with juvenile offenders is related to his attitudes toward causation and treatment. If he holds that delinquent behavior is the product of a free and defiant will, he will be likely to employ punitive measures in his treatment of the youth. Conversely, if he maintains that delinquency results from demoralizing influences that thwart the youth's basic needs for security and supervision, he will attempt to understand and help the youth at the level of his rehabilitative needs.

* Received in the Editorial Office on June 29, 1961.

¹ This study is based upon a dissertation submitted in partial fulfillment of the requirements for the Ph.D. degree at Boston University. The author wishes to express grateful acknowledgment to Dr. Paul E. Johnson, Dr. Howard S. Selvig, Dr. Daniel J. Levinson, Miss Sylvia Fleisch, and Dr. Donald T. Devine for their guidance in the undertaking of this study.

The investigation also focused on the relationship between a minister's theological beliefs and his attitudes toward the understanding and treatment of children who commit delinquent acts. Do a minister's theological beliefs determine his ideology regarding juvenile delinquency and influence what he personally does in relation to youths who offend? Or, is his personality orientation the predominant determinant of his attitudes and actions toward youth offenders? Would the minister who communicates supportive attitudes and actions be inclined to identify with a type of theology different from the type held by the minister who verbalizes authoritarian attitudes and behavior? The theological beliefs of the ministers were classified according to the following typology: orthodoxy (which includes fundamentalism and neo-evangelicalism), moderate conservatism, neo-reformation theology (neo-orthodoxy), liberalism, and humanism.

B. METHODS

Two methods were employed to collect data and test the hypotheses: (a) a Juvenile Delinquency Attitude (JDA) Scale was constructed and administered to 92 ministers; and (b) 40 of the 74 respondents completing the questionnaire were interviewed.

1. *Construction and Use of the Juvenile Delinquency Attitude (JDA) Scale*

The JDA Scale was designed to measure the ministers' positions on an authoritarian-supportive continuum. The terms "authoritarian" and "supportive" refer to contrasting types of ideological orientations regarding juvenile delinquency.

The fundamental features of the authoritarian ideology are: rigid application of the principle of freedom of the will to delinquent behavior; preoccupation with a moralistic interpretation of such behavior; the consequent tendency to condemn and reject offenders; emphasis upon punitive and repressive measures as the major bases of reform; the belief that unquestioning submission to established authority is the primary goal of rehabilitation; the assumption that certain (rigid) conditions would have to be met by young people before they could and should be helped; stereotyping of offenders as vicious and destructive; exaggeration of the rehabilitative power of supernatural help; and distrust of introspective psychological methods of understanding and handling young people.

The supportive ideology, on the other hand, is characterized by these features: the capacity to experience youth offenders and their parents as individuals; the desire that treatment of offenders be based upon an under-

standing of their individual needs; the belief that unconscious emotional needs and other complex factors may limit a youth's will power and predispose his delinquent motivation; the assumption that treatment is an educative rather than a punitive process and that the emotional development of the youth and not punishment is the aim of treatment; emphasis on interpersonal relationships rather than on impersonal rules as the primary method of treatment; emphasis on acceptance, understanding and patience as essential qualities underlying the adult worker's relationship with the youth; and willingness to accept and use the mental health resources of community agencies. A more detailed presentation of the underlying theory of the authoritarian-supportive continuum of the JDA Scale is given by Alberts (2).

The JDA Scale was composed of 23 items. Agreement with the items indicated an authoritarian ideology whereas disagreement suggested a supportive ideology. The items are listed in Table 1.

a. *The sample.* The 92 ministers selected to comprise the sample were serving churches with which juvenile offenders, brought consecutively into the Boston Juvenile Court between January 1, 1957 and February 5, 1959, had been actively or nominally associated. The group represented a large majority of Protestant ministers whose juvenile parishioners or constituents appeared before the Court between the above dates. The ministers chosen were also those located closest to the Court. This latter basis of selection insured a relatively homogeneous ecological sampling. The sampling, therefore, was representative of and limited to Protestant ministers situated in and directly adjacent to Boston. The 74 ministers completing the questionnaire are affiliated with 14 Protestant denominations.

b. *Item analysis and reliability of JDA Scale.* The assumption that ministers' attitudes toward juvenile delinquency could be measured on an authoritarian-supportive continuum appears to be verified. The pretesting of the JDA Scale with 50 Methodist ministers showed 23 of 38 items, representing traits of the authoritarian ideology, to discriminate between high (authoritarian) and low (supportive) scorers at the five per cent and one per cent levels.

The data derived from the testing of the ministers who participated in the main study corresponded with the findings obtained in the pretesting of the scale. Most of the 20 highest scorers agreed (slightly, moderately, or strongly) with a high majority of the authoritarian items of the JDA Scale whereas a high percentage of the 20 lowest scorers disagreed (slightly, moderately, or strongly) with 19 of the 23 items. This finding further validates the assumption that the JDA Scale distinguishes between ministers

TABLE 1
JUVENILE DELINQUENCY ATTITUDE (JDA) SCALE

Items
1. Each member of a gang that becomes involved in a gang war, commits robbery, sets fires, etc., is equally guilty and all should receive the same punishment.
2. While psychology can contribute to our understanding of why children steal, become truant, run away from home, and are stubborn, there are some kinds of violent and wanton behavior that cannot be understood by the human mind.
3. Youngsters who get into trouble have to suffer the consequences in order to learn that wrong living does not pay and can only lead to punishment and suffering.
4. Young people who commit sex crimes, such as raping or molesting girls or forcing other young people into homosexual acts, deserve more than mere imprisonment; they ought to be dealt with severely.
5. Living is too soft for kids today; less of them would get into trouble if they had a job to occupy their time and minds.
6. While looks can be deceiving, physical appearance, such as tidiness or sloppiness, tells a lot about a young person; it would seem that even the delinquent child who is tidy and neat would be easier to help than the delinquent whose appearance is rough and untidy.
7. If delinquents expect adults to like them, they have to show respect and obedience.
8. Character, honesty, and obedience will tell in the long run; most boys and girls get what they deserve.
9. The boy who commits a destructive or assaultive act should be locked up where he can do no more harm.
10. A major cause of delinquency stems from magazines and movies that play up the sordid and seamy side of life, exposing the minds of young people to all sorts of immoral ideas and criminal schemes.
11. On the whole, juvenile delinquents are not as much the unfortunate and helpless victims of circumstances as some people think; they know right from wrong and can do better if they try.
12. It would be difficult, if not impossible, to help the juvenile offender who refused to repent and confess his guilt.
13. With regard to juvenile delinquency, we are putting too much faith in the psychological approach, when what we really need are stiffer laws and more vigilant law enforcement.
14. We are coddling juvenile delinquents and their parents by shielding them from the newspapers; if the names of the delinquents and their parents were published, the disgrace might have the effect of keeping such youths out of further trouble.
15. Young people should not be allowed to hang out on street corners for it is often there that delinquent gangs are formed and malicious acts planned.
16. It would be easier to help a younger and smaller boy who became involved in delinquency than an older and bigger boy.
17. Help to delinquents is better carried on in the church and synagogue than in the demoralizing setting of the home.
18. It is almost too late for the church or synagogue to help the persistent delinquent after he has finally been sentenced to a correctional institution.

TABLE 1 (continued)

Items
19. Church- or synagogue-sponsored activities, such as scouting, arts and crafts, and basketball, while of value to delinquent youngsters in the forming of wholesome relationships with peers and adult leaders, do not offer as much corrective influence as religious instruction classes.
20. Most juvenile delinquents are vicious and destructive and present a growing threat to life and property.
21. Behavior is either right or wrong, good or bad, and young people should be rewarded or punished accordingly as the case may be.
22. Psychologists who deal with delinquents in guidance centers and reformatories should be less concerned with the subconscious life of these youths and more concerned with their moral life.
23. In the final analysis, the only way to stop some kids from getting into further trouble is to instill fear in them whether it be the fear of God, or the fear of the police, or the fear of punishment.

who hold authoritarian and supportive ideologies concerning the causes and methods of treating the various delinquencies.

The JDA Scale was found to possess a high degree of reliability. Retesting of 33 ministers in the experimental sample give a correlation of .95 of the test-retest and of .93 from the average item-test correlations. The validity of the JDA Scale will also be seen in the analysis of the interview data.

c. Authoritarianism (F) and Traditional Family Ideology (TFI) Scales. In addition to the JDA Scale, the questionnaire contained a short form of the F Scale (1), which measures personality tendencies on an authoritarian-equalitarian continuum, and a short form of the TFI Scale (5), which measures attitudes toward family structure and functioning on an autocratic-democratic continuum. The F and TFI Scales provided a means by which to test the first hypothesis, i.e., to determine whether ministers' attitudes toward juvenile delinquency were associated with authoritarian or supportive personality tendencies. The correlation between the F and TFI Scales is .73 (5), and it was believed that both would correlate significantly with the JDA Scale.

d. Relation of JDA Scale to F and TFI. The major hypotheses guiding the study are substantiated by the findings. The product-moment correlation between the JDA and F Scales was .83, between the JDA and TFI Scales .81, and the correlation between the F and TFI was .77. These high correlations suggest that the authoritarian-supportive continuum of the JDA Scale is related to the authoritarian-equalitarian continuum of the F Scale and to the autocratic-democratic continuum of the TFI Scale.

These relationships support the hypothesis that a minister's internal frame of reference (i.e., his deep-rooted emotional dispositions (as measured by the F and TFI Scales) determines, to a great extent, the nature of his attitudes toward the causes and treatment of juvenile delinquency (as measured by the JDA Scale).

2. *The Interviews*

Interviews were conducted with the respondents whose total scores on the JDA Scale fell in the upper 27 per cent and the lower 27 per cent of the distribution. Since 74 ministers completed the JDA Scale, those interviewed comprised the 20 highest and 20 lowest scorers. The high scorers were located at the authoritarian extreme of the Scale and the low scorers at the supportive extreme.

An interview guide was employed. The questions composing the guide focused on the minister's personal contacts with youth offenders, his beliefs regarding the causes and treatment of delinquency, his ideas concerning the role of the church in treatment, his attitude toward the value of psychology in diagnosis and treatment, his awareness and utilization of treatment resources within the community, and his theological beliefs.

C. FINDINGS

1. *The Interview Analysis*

The interview analysis revealed that high-scoring respondents, following their authoritarian scores on the JDA Scale, tended to be authoritarian in their treatment of young people. They avoided, condemned and rejected the youths, demanded that the youths obey their dictates without question, resorted to fear and force in handling them, and attempted merely to tell them what to do because it was presupposed that they were completely capable of doing what was right.

Low-scoring respondents complemented their supportive scores on the JDA Scale by assuming a supportive role in their treatment of young people. They attempted to accept and understand the youths, to hold up ethical values to them, provide them with long-term treatment, create wholesome activities in which they could participate and through which they could feel accepted, enlist the help of community leaders in treating them, and to help them readjust in the community after their period of confinement.

The diverse behavior of the high and low scorers toward youth offenders was also indicated by their respective utilization of community resources

(i.e., social agencies, guidance centers, psychiatric clinics, psychiatrists, etc.) that specialize in the diagnosis and treatment of offenders. The authoritarian role of high scorers was reflected in their limited employment of community resources to help the youths and their parents; these 20 scorers listed made a total of only 14 referrals between them. It is to be noted that the high scorers possessed a combined awareness of 36 resources. On the other hand, the supportive role of low scorers was suggested by their high number of referrals of youth offenders to specialists and agencies within the community. They listed 53 referrals, and were aware of 118 resources. These findings, as well as the performance of the high and low scorers in their personal treatment of offenders, support the hypothesis that a minister's handling of offenders is related to his attitudes toward juvenile delinquency.

The validity of the JDA Scale was substantiated by the data obtained from the interviews. In addition to the above findings, the data disclosed that high scorers presented simplified and generalized explanations regarding the causes of delinquent behavior, advocated authoritarian methods of treating offenders, and expressed messianic concepts (i.e., extreme faith in supernatural help) in relation to the role of the church in treatment. Conversely, low scorers indicated that delinquent behavior was the result of a dynamic interplay of multiple and specific factors operating in the lives of young people, manifested a supportive philosophy of treatment (i.e., treatment based upon an understanding and appreciation of the individual needs of offenders) and proposed that the church's role in rehabilitation consisted of accepting offenders and establishing value-centered relationships with them. These data complemented the high and low scorers' respective positions on the authoritarian-supportive continuum of the JDA Scale.

2. Relation of Theological Beliefs to Attitudes Regarding Juvenile Delinquency

The measurement of the respondents' theological beliefs showed that 11 high scorers and no low scorers identified with fundamentalism. This finding leads to a consideration of the relationship between fundamentalism and authoritarianism. It does appear that the theological structure of fundamentalism contains characteristics which are similar to the authoritarian orientation. Fundamentalism seems to suit individuals with authoritarian aggression tendencies because it contains a judicial element upon which they can project and justify hostile impulses. For example, when H7 was asked about the role of the church in the treatment of young people, he said quite forcefully:

Churches have swung to pleasing the crowd and compromising the Gospel instead of teaching them the severe penalty that is theirs if they don't abide by the rule. There's a tremendous lack of preaching the fear of God. Change that to the "judgment" of God. I like the word judgment. It's a little bit stronger. People say, "God is love." How about a God of anger and judgment? The Bible teaches that. We are in line for the same thing if we don't watch out.

The uncritical acceptance of biblical infallibility, the complete helplessness of man, his total dependency upon an external supernatural power, and the demand that he surrender his will to that power are beliefs of fundamentalism which carry overtones of authoritarian submission. These overtones were reflected in the comment of H17: "Whatever Jesus taught or said is basically true whether I understand it or not, and if I don't understand it, I'm stupid, not him"; and in the statement of H16: "We have our cardinal doctrines we don't waver from, and we can't change them." The specific, orderly and absolute doctrinal beliefs of fundamentalism also reflect a rigidity which appears to blend with the authoritarian tendency to stereotype persons by applying rigid categories and oversimplified explanations to their behavior. This tendency was manifested in the thought of H19 who said in elaborating on his doctrine of free will:

I don't hold a homosexual innocent. It's his own choice. I think in our day we have labeled things as a disease where before it was a crime. In other words, we always find an excuse for the criminal. But I don't think crime should be treated as a disease. If we agree that crime is a life a man [note the automatic change from young people to men which happened repeatedly in the interview] adopts by choice, with the full knowledge of what the consequences are, of what his crime will be, then the treatment of crime is the meting out of a punishment to fit the crime. . . . If in my home from which I came there was an infraction of the rules, then there was also a punishment to fit the infraction of the rules.

It is to be concluded from this analysis that fundamentalism might tend to attract an individual with an authoritarian disposition because it contains features which accommodate or adapt themselves to such a disposition.

While there appears to be a relationship between fundamentalism and authoritarianism, also significant is the fact that one high scorer and four low scorers associated themselves with liberalism, that two high scorers and one low scorer identified with neo-evangelicalism, and that five high scorers and five low scorers held moderately conservative beliefs. These data indicate another principal finding: that religious beliefs can be reinterpreted to

accommodate authoritarian or supportive tendencies. The accommodation of religious thought to authoritarian tendencies will be seen in the following two findings regarding messianic beliefs and will power.

Extreme emphasis upon *messianic* mystical solutions to the problem of delinquency served to support the authoritarian orientation of the high scorers. If rehabilitation depends upon a mystical relationship between youth offenders and a divine power, there is less need to rely on personal resources and less demand for personal involvement in working with offenders. In fact, belief in a supernatural panacea helps the minister to defend against a feeling of inadequacy and to justify avoiding offenders. A relationship between messianic thinking and avoidance of young people was revealed in high scorers' statements concerning the role of the church in rehabilitation. Many of them stressed a supernatural remedy while manifesting a disposition to avoid offenders.

Messianic beliefs appeared to be related to the high scorers' limited utilization of community resources and to their anti-introspective defenses (i.e., their tendency to resist reflective self-examination and, consequently, to be dubious of diagnostic and treatment methods that seek to study the phenomena of delinquent motivation lying below the surface of consciousness). These interrelationships were evident in their statements regarding the value of psychology in the treatment of children. They magnified the importance of religious antidotes and minimized and belittled the value of psychological resources in the treatment of young people. Since Christ held the solution, there was little need to focus on personality dynamics in the diagnosis and treatment of personality disturbances. This external supernatural and mystical focus helped to prevent them from considering internal determinants of behavior and thus protected them from anxiety-provoking discoveries about human motivation.

The messianic concept appears to blend with the authoritarian submission demands of high scorers. If rehabilitation issues from God, the youth's only hope lies in surrendering his will to God and conforming to His dictates (as interpreted by the minister). This reasoning not only justifies the projection of authoritarian demands on to God; it also vindicates the rejection of youths who do not submit. Here again, a feeling of inadequacy can be handled by placing responsibility for rehabilitation solely on the youth's willingness to accept divine help.

A belief in *will power* (i.e., the unqualified assertion that all behavior is predetermined by the individual's inner power to regulate his life) provides fundamental rationalizations for the authoritarian minister. It was

theorized that if a respondent believed young people were completely responsible and accountable for their behavior, he could absolve his authoritarian dispositions. If they wilfully committed a wrong, he could reason that they deserved and needed to be punished. If delinquent and nondelinquent behavior were thought to be merely a matter of free choice, there would be no need to look for other predisposing and precipitating causative factors, no need to utilize the diagnostic and treatment resources of specialists and community agencies. If the power to choose were assumed to be a built-in character trait, rehabilitation would simply consist of conforming, accepting Christ, and choosing to be good. If nothing were believed to be deeper and more dynamic in personality than a conscious and free will, the tendency to stereotype behavior, resist subjective reflection, and project unconscious impulses could operate unnoticed.

These rationalizations underlying the concept of will power were manifested in the data. The authoritarian-disposed respondents scored quite high on all of the items of the will power variable of the JDA Scale whereas the supportively-inclined respondents scored exceptionally low on those items. In addition, the adherence of high scorers to the concept of will power was revealed by the interview data. They stated that punishment should fit the crime since crime was a life adopted by choice, that freedom of choice justified the condemnation of youths who offended, and that rehabilitation was merely a matter of persuading young people not to let a delinquent act happen again. Their faith in the will power of young people may be related also to their low utilization of community resources. The assumption that delinquent behavior is an act of free will leads to the conclusion that correction calls for repressive measures rather than for understanding and treating personality needs and motivations. The minister especially needs to rationalize tendencies that are contrary to his calling. The concept of will power, as well as the messianic concept, gave the high scorers a unifying logic which made their attitudes and behavior quite understandable and justifiable to them.

3. *The Relation of JDA Score to Ethnic and Educational Background*

Nine high scorers, one low scorer, and three middle scorers are Negro ministers. The other respondents are Caucasian. The large number of high-scoring Negro respondents may indicate that Negro ministers tend to be more authoritarian than white ministers. There is some justification for such an indication. The high scores of the Negro respondents do not appear to be related to illiteracy or deprivation. A survey of their educational

backgrounds reveals that three of them received college and seminary degrees from fully accredited schools, and that two of the three hold a Master's degree. In addition another Negro respondent studied music at three major schools, and still another is an accomplished organist. The authoritarian tendencies of these respondents, therefore, seem to be a cultural phenomenon rather than a phenomenon of limited education.

The possibility that Negro persons tend generally to be more authoritarian than white persons is indicated by various studies. Prothro and Smith (6) believe that authoritarianism is more marked in people who are the victims of segregation than in those who impose segregation upon them. Steckler (7) discovered that Negro students in several colleges made higher F-Scale scores than white college students. It was also found that Negro students scored higher on the F Scale than white students in the same Texas high school (4).

Of the 20 high scorers, 12 received college and seminary degrees, and three obtained a Master's degree. On the other hand, all of the low scorers hold college and seminary degrees, and seven of them hold a Master's degree. In addition, six of the low scorers have taken clinical training in general and mental hospitals.

The generally greater educational level attained by the low scorers raises the question of a correlation between level of educational attainment and degree of authoritarianism. Studies show that there is a partial correlation of .2 between education and authoritarianism when intelligence, age, and sex are held constant (3). The limited reliability of this correlation, however, is illustrated by the high scorers who received college, seminary and graduate degrees. Thus another question needs to be raised: *Do less authoritarian people want more education?* If so, this factor would help to explain why six low scorers received clinical training, and why, on the whole, the low scorers achieved a higher education than the high scorers. The data suggest that it is just as likely that less authoritarian tendencies lead to more education as it is that more education leads to less authoritarian tendencies.

4. *Personality Characteristics Associated with Low JDA Scores*

A primary characteristic of the low scorers' supportive ideology was their *capacity for individuated perception* (i.e., their ability to perceive youth offenders as individuals and to identify consciously with their interests and needs). Their low scores on the JDA Scale reveal a refusal to agree with generalizations and stereotypes in thinking about the causes and treatment of juvenile delinquency. In a like manner, the interview data indicate that

they attempt to understand and experience youth offenders as individuals, to identify with and utilize community resources that provide individualized treatment, and to base their personal treatment of youths on an understanding and appreciation of the youths individual needs and circumstances.

The findings support the assumption that the low scorers' capacity for individuated perception is an outgrowth of their developmental awareness and integration of personal needs, motivations and limitations. They seem to have achieved a higher level of personal integration than high scorers. This achievement may be indicated by their greater appreciation and understanding of the psychology of human behavior. They view psychology as an important tool for understanding the underlying motivations of delinquency. Such understanding appears to be related, to a degree, to the perception and integration of their own emotional life. Their higher personality development is also suggested by the fact that six of them (and no high scorers) received clinical training, a primary aim of which is to help trainees understand and develop personal resources. Thus it appears that the integration of personality is one of the primary conditions for the capacity for individuated perception.

Another significant feature of the low scorers' supportive ideology as revealed by the interviews was their emphasis upon the *rehabilitative value of interpersonal relationships*. This emphasis was disclosed in their philosophies regarding the treatment of offenders, concepts concerning the role of the church in treatment, and in their personal contacts with offenders. Representative respondents of the group stated that treatment should be interpersonal in nature, based upon the acceptance and understanding of offenders, guided by ethical ideals, and sustained by patience. With regard to the church, all of them believed that the religious community should accept and not exclude youth offenders. Concerning their personal contacts with young people, a characteristic tendency was their attempt to accept, understand and appreciate the youths as individuals and to encourage them to live by moral standards of conduct.

D. CONCLUSIONS

The minister who possesses supportive tendencies is likely to be more effective in working with youth offenders than the minister who has authoritarian tendencies. The interview data revealed that low scorers were more apt to help offenders on a long-term basis than high scorers. The patience and understanding communicated by the former, as opposed to the egocentric conditional acceptance demands of the latter, are consistent with the above.

The democratic, youth-centered disposition of low scorers would help them to facilitate a stable and value-producing relationship with youth offenders. Conversely, the egocentricity of high scorers would predetermine a precarious relationship between themselves and offenders. The apparently higher level of personality integration and greater capacity for individuated perception revealed by low scorers indicate that they would be more secure, more understanding, less prejudiced, and consequently more helpful than high scorers in dealing with youths and their parents. Thus it is believed that the supportive ideology of low scorers (i.e., their youth-centered, interpersonal, educative, and ethical attitudes regarding the understanding and treatment of juvenile delinquency) seems to be the best guarantee for an effective ministry to young people in antisocial crises.

REFERENCES

1. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, R. N. *The Authoritarian Personality*. New York: Harper, 1950.
2. ALBERTS, W. E. Ministers' attitudes toward juvenile delinquency. Research Monograph, Division of Temperance and General Welfare of The Methodist Church, 1962.
3. CHRISTIE, R., & JAHODA, M., *Eds.* *Studies in the Scope and Method of 'The Authoritarian Personality.'* Glencoe, Ill.: Free Press, 1954.
4. GREENBERG, H., CHASE, A., & CANNON, T., JR. Attitudes of white and Negro high school students in a West Texas town toward school integration. *J. Appl. Psychol.*, 1957, **41**, 27-31.
5. LEVINSON, D. J., & HUFFMAN, P. H. Traditional family ideology and its relation to personality. *J. Personal.*, 1955, **23**, 251-273.
6. PROTHRO, J. W., & SMITH, C. U. The psychic cost of segregation. *Adult Educ.*, 1955, **5**, 179-181.
7. STECKLER, G. A. Authoritarian ideology in Negro college students. *J. Abn. & Soc. Psychol.*, 1957, **54**, 396-399.

Lafayette Street Methodist Church
296 Lafayette Street
Salem, Massachusetts

"THE RAILROAD GAME": A TOOL FOR RESEARCH IN SOCIAL SCIENCES*¹

System Development Corporation

B. T. JENSEN AND S. J. TEREBSKI

A. PURPOSE

The game was developed in response to a need for a device which would require two or more persons to interact and which possessed certain characteristics. The resulting device was a logistics system requiring a crew to issue instructions to move material from point to point within an area. The context of the "game" was a railroad system with the subjects working as the crew of the dispatching office. The context could be changed readily to a military air transport system or to another system involving movement of things without affecting the functional relationships within the setting. Two variations of the system have been used: (a) a two- or three-man manual system, and (b) in order to introduce more machine problems, a three-man semi-automated system.

The system meets the requirements in the following ways:

a. *Provides a dynamic environment.* The initial distribution of the six kinds of freight cars is altered each time the crew initiates an order for shipping loaded or empty cars. Since the distribution at the beginning of each session is the same as that at the end of the previous session and products can be shipped in only certain kinds of cars, inattention to or ineptness in dealing with distribution of resources creates problems in future sessions.

b. *Permits contingent rather than discontinuous exercises.* Earnings are cumulated and car availability carried forward from session to session. The actual orders input each session vary in a manner consistent with weather forecasts and with estimates of future business.

c. *Is complex and provides intrinsic reward.* The system provides symbolic income and expenses. Effects of operations are highly visible and frequently immediate, but subjects must develop strategies appropriate to the dynamic

* Received in the Editorial Office on July 5, 1961.

¹ This note refers to a social system developed and used in the Human Factors Laboratory of the System Development Corporation. Persons desiring copies of instructions and other materials may obtain them from the authors by requesting TM-608.

environment. The motivation of subjects in our studies was not a problem (the interest remained high).

d. Is modifiable. The instructions can be changed to provide more or less information about the environment, input may be presented in many small orders or a few large ones, and storms or other difficulties, such as strikes at the various stations and track outages, may be introduced easily to vary the complexities of the situation.

e. Requires optimal solutions. It is impossible to earn money if the crew always tries to maximize its income on transactions. The crew must develop strategies which define the contingencies under which it will accept a loss in order to make money the next day.

f. Functionally simulates man-machine systems. The crew must perform the functions of decoding and filtering, passing information within the system, allocating resources, and planning for future readiness. In addition, the automated version requires subjects to interact with a computer (simulated) and to use input-output equipment of the type normally associated with a computer.

g. Simple to operate. Two simulator persons are required (to serve as stationmasters or other agents of the railroad) and someone or something to perform a routine function of providing input. Training of the simulators required less than an hour in the manual system and about 20 hours in the automated version. Training of the crew required about 30 minutes in the manual system and four hours in the automated system. Of course, training of the crew would be lengthened with the imposition of organization, specific procedures, or the inclusion of more details regarding the environment.

B. PROCEDURE

In our studies the length of time that any given group of subjects operated depended upon the experimenter's purpose at the time. Some subjects worked for only two half-hour sessions, and one group worked for 12 one-hour sessions in a two-week period.

The instructions, while clear on the points covered, do not delineate all of the ground-consequence relations—this forces the subjects to develop a model of the environment to which all subscribe. The instructions do not specify operating procedures; therefore, the crew must devise its own strategies and tactics and internal procedures. These must be consistent with the environment. In addition, since our instructions do not, in most

cases, specify the roles and functions performed by the individuals, the crew has an organizing task as well as the task of learning the environment and operating the system.

C. RESULTS

In general, a Ph.D. with system experience lost interest after four or five sessions in which he learned the ground-consequence relations and evolved appropriate strategies. College sophomores used different heuristics and never seemed to understand the system in the same way as the others; they remained interested much longer. Behavior of men and women differed.

Two major organizations have developed within the constraints of the environment: (a) a parallel structure in which both persons performed the same functions; and (b) an in-line structure in which functions were differentiated. Undoubtedly, by varying the working rules and the available materials and/or by overmanning the crew, interesting variations might develop.

A variety of behavior was exhibited. Conflict between two men in one three-man crew forced one person to leave the field and afforded an opportunity to study integration of a replacement. Some persons were dissatisfied with their selection of a very uninteresting function (which had appeared at first to be important and challenging) and engaged in various attempts to modify their tasks. Performing the function of allocation of resources leads to a power position in that the person performing this function acquires information not available to the others. Many kinds of data collection and analysis may be applied to this miniature social system.

System Development Corporation
2500 Colorado Avenue
Santa Monica, California

SEX DIFFERENCES IN INTERACTION CHARACTERISTICS*¹

University of Wisconsin and New York University

EDGAR F. BORGATTA AND JOHN STIMSON

A. INTRODUCTION

One of the questions that often arises with experimental studies is: "Will the findings replicate with different subjects?" The question is not one of whether the findings will be repeated if the experiment is repeated, but rather it has to do with the generality of the conclusions. The question is directed to the possibility that some of the studies provide findings that hold only for specific conditions, and that, if other conditions were prevalent, other findings might result. Such a criticism implicitly indicates either that the theory doesn't have a sufficient number of variables available (and its test in experiment or systematic observation is not sufficiently encompassing), or, if conditions do not vary systematically, that different theories will be needed for the different conditions. Such questions are raised with regard to facets of behavior that are supposed to be related to the culture, and thus the question is not infrequent: "Would it replicate for a tribe like the Esterjaki?"

When such things as logic, perceptual skills, and values vary, the question of replication is an important one. It is important, however, even within a culture where variables such as sex, socioeconomic class, and educational exposure may have a bearing on such response areas. In a recent article, Vinacke (7) gives attention to sex role differences in a three-person game. He speculates that "... female subjects might be much less concerned with winning and more oriented towards social and ethical considerations [than males]" While some previously found effects are replicated in his research, others are not, and the latter are accounted for by the speculated differences in the sexes. Several things become emphasized in critical reading of this research. First, we are in a relatively primitive state of knowledge with regard to the variables that are important in the kind of experimental situation described, and if the variables involved are "concern with winning"

* Received in the Editorial Office on July 19, 1961.

¹ This research was supported in whole or in part by the U.S. Air Force under contract AF 49 (638) -195 at New York University and AF AFOSR 61-30 at Cornell University, monitored by the Air Force Office of Scientific Research of the Air Research and Development Command.

and "social and ethical orientation," the theory should be demonstrable by systematic research involving these variables; differences between males and females subsequently would *illustrate* the theory when it is shown that males and females differ on the variables and behave as predicted. Second, it is necessary to make sure that the predicted consequences are indeed not the defining differences. And third, we need to give more attention to charting the more general behavioral differences on variables such as sex, not only for the intrinsic value in understanding the dichotomy, but also for allocation of importance to variables utilized in systematic research. Social psychologists have frequently ignored such differences by looking for variables on which sex differences are not apparent. For example, in the design of personality inventories some attention has been given to sex differences, but in general subtests are given as applicable for both sexes. Still, different norms are usually required and published. Further questions of the structural arrangement among subtests that reveal differences in the sexes are commonly glossed over as though they did not exist.

B. PROBLEM

In this report, attention is given to a comparison of the interaction characteristics of males and females. It is necessary to make the frame of reference of comparison explicit. If it is assumed that males and females are different, then observing the characteristics of a female interacting with four males in a group is not the same as observing a male interacting with the same four persons. If the qualitative difference means anything, the female is conspicuous in the group, and what is being compared is not behavior under equivalent conditions. Conceivably, the equivalent condition would be the behavior of a male interacting with four females, but even this is an assumption that is not warranted from our general knowledge. It is easier to phrase the question of differences in interaction characteristics on the basis of how groups composed of the same sex might behave, and this is the tack taken here. It must be underscored that this is not the same as asking what differences occur with different sex combinations in groups.

The subjects were students, primarily sophomores. In the experimental procedure, like-sex groups of five persons were composed without purposive selection; participation was in a timed 80-minute session with four topics discussed. The topics were selected to involve different content, and topic order was varied on a Latin-square design. After the meeting, questionnaires were completed. Interaction was scored on a set of categories adapted

from Bales (1). Complete data were collected for 31 male groups and eight female groups.

C. ANALYSIS OF DATA

1. *Interaction Rates of Male and Female Groups*

The first question of interest in analysis of the data is whether the total interaction rates of the male and female groups differed. In Table 1 it is seen that no substantial difference occurs in the total interaction rates. Examining the profiles, several discrepancies are visible. The profiles of groups differ significantly on IPS 1, Social acknowledgment; IPS 12, Draws attention; and IPS 14, Disagrees.² In addition, if the data for persons rather than groups are considered, comparisons on IPS 15, Shows inadequacy, and IPS 16, Tension increase, are significantly different. Although not statistically significant, the additional differences for IPS 4, Acknowledges, and IPS 17, Shows antagonism, are worth perusal.

Having observed the differences involved, it is proper to ask what they mean. Do group differences occur, for example, because persons have differences in the observed characteristics, or are the group differences between males and females consequences of the interaction processes? It is possible, of course, that both these explanations have merit, but the available research appears to favor the former. For example, studies have shown that individual interaction behavior in independent groups tends to be reliable for persons (5), and, similarly, that a major method of predicting group rates is by the prior interaction rates of the members (4). In any event, for purposes of our analysis we shall initially operate as though the individual characteristics are the proper units for analysis.

While several differences in the interaction profile are found, this does not answer the question directly of whether males and females differ in as many ways as differences are indicated. It is necessary to examine the structural arrangement of the IPSs to know which of the comparisons tend to be independent, and the method for this is factor analysis. If factor analysis is carried out for both males and females, the further question may be asked of whether the same structural arrangement of variables occurs, at least on the more clearly defined factors.

² Significance in this paper refers to the equivalent of a symmetric two-tailed test with $\alpha = .05$.

TABLE 1
INTERACTION PROCESS SCORES (IPSS) FOR MALE AND FEMALE FIVE-PERSON GROUPS*

	Male, <i>N</i> = 31		Female, <i>N</i> = 8	
	Raw	Per cent	Raw	Per cent
1 Common social acknowledgments (<i>1a</i>)	7.1	.4	2.1	.1
2 Shows solidarity through raising the status of others (<i>1b</i>)	33.8	1.9	40.5	2.3
3 Shows tension release, laughs (<i>2</i>)	96.6	5.7	90.9	5.2
4 Acknowledges, understands, recognizes (<i>3b</i>)	83.8	4.8	99.5	5.7
5 Shows agreement, concurrence, compliance (<i>3b</i>)	42.1	2.4	42.5	2.4
6 Gives a procedural suggestion (<i>4a</i>)	102.8	5.9	106.3	6.1
7 Suggests solution (<i>4b</i>)	33.7	1.9	29.5	1.7
8 Gives opinion, evaluation, analysis, expresses feeling or wish (<i>5a</i>)	695.7	39.9	676.3	38.7
9 Self-analysis and self-questioning behavior (<i>5b</i>)	2.3	.1	5.9	.3
10 Reference to the external situation as redirected aggression (<i>5c</i>)	3.7	.2	6.7	.4
11 Gives orientation, information, passes communication (<i>6a</i>)	74.8	4.3	83.9	4.8
12 Draws attention, repeats, clarifies (<i>6b</i>)	223.1	12.8	158.1	9.1
13 Asks for opinion, evaluation, analysis, expression of feeling (<i>8</i>)	18.9	1.1	20.9	1.2
14 Disagrees, maintains a contrary position (<i>10</i>)	70.0	4.0	103.6	5.9
15 Shows tension, asks for help by virtue of personal inadequacy (<i>11a</i>)	175.7	10.1	147.5	8.4
16 Shows tension increase (<i>11b</i>)	50.3	2.9	90.0	5.2
17 Shows antagonism, hostility, is demanding (<i>12a</i>)	25.8	1.5	38.9	2.2
18 Ego defensiveness (<i>12b</i>)	3.3	.2	2.8	.2
Total	1743.5	100.1	1745.9	99.9

* Major relationship to Bales' IPA categories is indicated in italics in parentheses.

2. Factor Analysis of Male and Female Samples

For the factor analyses, additional variables were introduced that are relevant to the male-female comparison of interaction, namely composite scores on peer rankings (PRs) and self rankings (SRs) for four relatively independent areas of characteristics: *Assertiveness*, *Sociability*, *Intelligence*, and *Emotionality* (2, 6). For the 155 males and 40 females, individual scores were intercorrelated (Table 2) and factored by the complete centroid method, with quartimax solution for the rotations (Tables 3 and 4). Ten factors were retained for rotation in the male analysis and 11 in the female.

As a first point of comparison, in the female data the mean communality (h^2) is .76, while that of the male data is .61. Although one additional factor was retained for the female data, this would not account for the difference since relatively little of the variance of the matrix is involved in the extra factor. Still, it is not possible to assume directly that more of the interaction of the females can be accounted for in the matrix, since the sample size for the female data was smaller and the additional error thus involved might lead to larger factor loadings. The rotated factor loadings are presented in parallel in Table 5, with only loadings of magnitude .3 or larger indicated.

Six of the factors involving IPSs appear to be reasonably aligned for the male and the female data. Factor I is *Total interaction rate*, but a defining concomitant is PR *Assertiveness*. PR *Intelligence* and *Sociability* also occur in this factor, but this is a known dependency among the PR measures (2). Involvement of SRs is with lower saturations, and this corresponds to their known operation as predictors of PRs. Factor I tends to be prominent in the matrix, involving over half of the variables for both the male and female data.

Factor II is here called *Antagonism*, and is defined primarily by IPS 17, Shows antagonism, and IPS 18, Ego defensiveness. IPS 14, Disagrees, occurs in the factor for both males and females, but there are a number of additional variables involved in the factor for the latter. These appear to be emotionally laden categories (IPS 9 and 10) and directive categories (IPS 6 and 13). The two directive categories occur as a separate factor for the male data (Factor IX).

Factor III is defined primarily by IPS 3, Laughs, and IPS 2, Shows solidarity, and thus is here called *Hedonic tone*. Additional variables in the factor for the male data appear to indicate tension build-up (IPS 16) and other tension release (IPS 10), while in the female data the additional variables appear to indicate lack of task involvement.

Factor IV is defined primarily on IPS 5, Shows agreement, and IPS 4, Acknowledges, and here is called *Acknowledgment*. Factor V, called *Tenselessness*, is defined only on IPS 15, Shows inadequacy, for the male data, but in the female data is coupled to IPS 16, Tension increase. Factor VI is defined primarily on IPS 14, Disagreement, with a different IPS involved as a second score for the male and the female data.

Factor VII is in each case defined by a cluster of PR variables, representing primarily the residual common variance among the PRs after the variance of PR *Assertiveness* has been removed (in Factor I). Factor VIII in the

TABLE 2
INTERCORRELATION MATRIX OF IPS SCORES, PRESS, AND SELF RANKINGS*

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
01	--	11	14	07	03	13	06	--08	--09	07	09	03	10	--01	04	14	--12	--11	01	10	12	03	02	--04	07	--06	--01	
02	14	--	60	18	05	16	--06	29	07	49	21	19	02	08	22	36	20	02	46	34	27	20	06	25	20	13	09	
03	12	61	--	--06	--19	--07	--20	--08	--08	46	--08	--11	--06	--02	--08	52	07	--05	13	02	--05	--01	07	05	06	10	--11	
04	24	36	04	--	64	28	12	43	--06	03	29	36	14	19	12	--02	13	18	46	43	35	32	01	21	11	13	08	
05	35	33	15	67	--	28	15	34	--07	--07	25	33	26	23	06	--02	14	10	37	37	29	28	--11	20	21	14	01	
06	--03	32	09	39	10	--	25	39	07	14	23	48	67	32	11	--01	21	09	55	52	23	31	--03	40	25	31	--12	
07	--28	--01	--04	12	--13	33	--	12	00	--06	12	13	14	07	03	--10	08	11	13	08	01	07	--01	13	05	03	02	
08	15	44	11	61	38	38	--06	--	08	12	51	72	26	37	34	--05	26	19	50	72	39	49	16	53	10	31	18	
09	--05	27	--06	--02	--10	50	18	10	--	09	30	--05	02	08	05	--08	10	11	09	08	09	06	11	07	--10	--10	08	
10	05	26	--11	--03	--07	42	--01	14	73	--	16	00	06	24	01	20	29	04	24	19	02	07	16	20	02	15	00	
11	--05	--12	--36	35	04	34	17	34	15	16	--	33	24	11	21	00	10	12	56	51	22	28	15	31	01	07	10	
12	04	53	24	58	36	31	--02	84	--02	01	13	--	36	29	30	--10	07	02	74	64	29	43	08	47	15	35	11	
13	14	06	--13	14	--01	56	42	10	50	47	44	--02	--	16	02	--06	14	04	39	35	15	17	--04	20	11	04	01	
14	13	29	14	20	11	12	11	56	13	28	11	58	28	--	01	--16	54	24	46	35	07	17	24	39	07	34	12	
15	--08	17	--13	07	--11	10	--11	33	46	33	27	22	04	10	--	13	01	--03	44	32	13	18	19	19	13	07	23	
16	04	--08	--34	--11	02	--14	--26	00	13	--04	--07	--13	--17	--27	40	--	02	--06	12	02	--01	02	01	--01	08	02	--08	
17	15	34	10	--14	--19	44	17	12	66	74	06	09	56	55	15	--06	--	67	39	20	--10	--03	17	20	--01	15	07	
18	19	14	--08	--14	--17	46	07	15	75	79	16	--14	57	27	22	03	79	--	24	13	--07	--02	02	15	00	06	08	
19	15	55	13	64	38	57	06	93	35	34	42	80	33	60	44	02	36	32	--	77	38	48	17	56	17	35	12	
20	18	19	--16	57	04	52	14	62	38	35	65	38	55	41	46	07	32	38	73	--	55	69	10	58	12	30	10	
21	14	03	01	37	11	15	--13	44	07	26	28	20	14	25	31	--06	08	22	42	54	--	76	--32	35	23	23	--11	
22	03	06	04	33	03	21	--02	50	13	17	33	35	33	30	33	--08	08	20	50	61	62	--	27	34	05	34	--08	
23	--10	11	--01	--04	17	20	--02	00	--05	12	04	02	22	17	01	11	02	11	--14	08	--16	--38	--35	--	07	--21	--09	28
24	12	35	00	29	06	40	--18	56	23	47	44	37	28	34	35	--11	35	40	61	60	57	33	11	--	36	49	07	
25	--10	23	--20	03	--17	14	09	36	22	28	15	26	18	25	35	22	30	26	39	28	21	11	10	47	--	41	--26	
26	08	03	--15	--08	--06	01	--11	15	--04	02	05	10	20	--01	30	33	00	03	15	16	24	29	23	31	34	--	--12	
27	--05	--03	--02	--15	--27	01	--05	--27	17	21	--14	--24	15	--06	06	--09	07	06	--20	11	--03	13	--19	--01	--12	--	--	

* Decimal points are omitted. Male data are above the main diagonal ($N=155$), and female data are below the diagonal ($N=40$). Correlations that would satisfy a statistical hypothesis test (symmetric) at the .05 level for the N indicated are italicized.

TABLE 3
ORTHOGONAL ROTATED FACTORS, MALE DATA, $N = 155^a$

ORTHOGONAL ROTATED FACTORS, MALE DATA, N = 125												
	I	II	III	IV	V	VI	VI	VIII	IX	X	h^2	
1 IPS Social acknowledgment	01	-16	18	11	18	04	03	-09	21	-02	20	
2 IPS Shows solidarity	36	01	74	03	08	01	03	02	-03	05	69	
3 IPS Laughs	-01	-02	84	-04	-16	00	-02	01	01	-09	73	
4 IPS Acknowledges	47	04	-03	66	01	01	08	-04	-04	-04	67	
5 IPS Shows agreement	38	04	-15	68	01	00	08	09	09	-01	67	
6 IPS Procedural suggestion	53	03	-05	04	-01	05	06	12	72	01	83	
7 IPS Suggests solution	14	04	-18	10	-01	-06	-05	03	18	04	15	
8 IPS Gives evaluation	90	08	-06	00	-09	-07	-01	-03	-11	03	85	
9 IPS Self-analysis	08	13	-04	-15	04	06	03	-12	-01	50	32	
10 IPS Redirected aggression	16	17	56	-06	-07	35	-02	00	09	15	53	
11 IPS Gives information	54	-04	01	09	-02	-04	01	-09	04	52	58	
12 IPS Draws attention	79	-14	-13	00	-14	-03	-05	06	09	-18	73	
13 IPS Asks evaluation	35	01	-10	05	03	-01	-01	-07	67	00	59	
14 IPS Disagrees	41	40	-04	06	-04	46	-10	10	07	-09	58	
15 IPS Shows inadequacy	43	-16	-01	-09	44	-11	-16	01	-13	01	47	
16 IPS Tension increase	00	-06	58	03	22	-19	00	06	03	-02	45	
17 IPS Shows antagonism	24	88	11	02	03	08	-11	-02	07	-04	87	
18 IPS Ego defensiveness	16	71	-05	06	03	-16	-06	-01	-03	04	59	
19 IPS Total	97	14	16	03	00	-11	-08	00	08	04	102	
20 PR Assertiveness	85	-01	03	02	09	13	30	-07	06	01	85	
21 PR Sociability	44	-15	01	14	11	-01	71	06	-03	03	76	
22 PR Intelligence	57	-08	00	-01	-03	04	71	-06	-01	-03	85	
23 PR Emotionality	17	08	06	-12	09	28	-47	-21	13	09	43	
24 SR Assertiveness	61	08	04	-10	-05	16	04	40	03	05	64	
25 SR Sociability	14	-05	09	12	09	-08	08	66	12	-04	52	
26 SR Intelligence	37	08	06	-07	-14	17	12	56	00	-15	55	
27 SR Emotionality	19	02	-12	-03	16	17	-27	-27	-21	02	30	
										Mean =	61	

^a Decimal points are omitted.

TABLE 4
ORTHOGONAL ROTATED FACTORS, FEMALE DATA, $N = 40^*$

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Σ^2
1 IPS Social acknowledgment	10	08	10	47	05	16	17	12	-17	-11	-34	47
2 IPS Shows solidarity	49	24	61	12	00	-11	-16	-08	-08	12	02	75
3 IPS Laughs	13	-02	76	06	-27	-13	02	04	05	05	-19	73
4 IPS Acknowledges	70	-17	-14	46	-12	-22	08	-15	12	10	11	37
5 IPS Shows agreement	38	-20	12	77	03	-02	-11	-06	03	-04	06	81
6 IPS Procedural suggestion	40	49	-05	05	-18	-45	-12	01	16	-02	-04	69
7 IPS Suggests solution	01	20	-19	-08	-30	-11	-24	-02	57	-04	09	58
8 IPS Gives evaluation	96	00	62	-02	05	05	07	-04	-04	-16	-01	96
9 IPS Self-analysis	11	82	-03	00	28	-18	-05	-13	12	17	08	86
10 IPS Redirected aggression	13	83	-04	05	05	03	05	-04	-24	12	24	85
11 IPS Gives information	42	13	-65	-01	-09	-21	-19	-02	-07	09	-17	71
12 IPS Draws attention	87	-13	23	-05	-09	17	-26	-03	04	06	06	94
13 IPS Asks evaluation	16	65	-34	13	-27	-03	-06	33	18	13	-16	83
14 IPS Disagrees	55	30	06	-07	-20	55	01	-02	09	-04	-06	75
15 IPS Shows inadequacy	38	21	-07	-26	56	-05	04	08	-08	33	09	71
16 IPS Tension increase	-04	-03	-10	04	79	-04	-02	10	04	-08	-08	66
17 IPS Shows antagonism	14	89	11	-05	-06	24	-07	00	-01	-08	-14	92
18 IPS Ego defensiveness	07	90	-05	00	10	-01	23	-01	-09	-02	-05	103
19 IPS Total	97	27	03	03	09	-02	-02	-03	06	-02	-21	93
20 PR Assertiveness	68	34	-37	-09	03	-12	28	06	00	26	-21	78
21 PR Sociability	48	08	-17	05	-05	-02	62	23	-14	01	22	73
22 PR Intelligence	49	10	-11	-09	-04	04	52	29	16	27	-03	73
23 PR Emotionality	03	07	-02	09	07	00	-76	25	01	08	-08	67
24 SR Assertiveness	59	32	-11	-10	-10	-11	09	19	-52	-02	11	83
25 SR Sociability	34	25	-12	-30	24	06	-15	16	-11	-25	21	51
26 SR Intelligence	17	-02	-04	-10	25	02	-05	73	-06	-02	02	64
27 SR Emotionality	-23	18	04	-10	-08	-06	20	-01	-02	41	03	51
												Mean = 76

* Decimal points are omitted.

TABLE 5
FACTORS FOR MALES AND FEMALES

Males		Females	
Variable	Loading	Variable	Loading
Factor I. Total interaction rate			
19 IPS Total	.97	19 IPS Total	.97
8 IPS Gives evaluation	.90	8 IPS Gives evaluation	.96
2 PR Assertiveness	.85	12 IPS Draws attention	.87
12 IPS Draws attention	.79	4 IPS Acknowledges	.70
24 SR Assertiveness	.61	20 PR Assertiveness	.68
22 PR Intelligence	.57	24 SR Assertiveness	.59
11 IPS Gives information	.54	14 IPS Disagrees	.55
6 IPS Procedural suggestion	.53	2 IPS Shows solidarity	.49
4 IPS Acknowledges	.47	22 PR Intelligence	.49
21 PR Sociability	.44	21 PR Sociability	.48
15 IPS Shows inadequacy	.43	11 IPS Gives information	.42
14 IPS Disagrees	.41	6 IPS Procedural suggestion	.40
5 IPS Shows agreement	.38	5 IPS Shows agreement	.38
26 SR Intelligence	.37	15 IPS Shows inadequacy	.38
2 IPS Shows solidarity	.36	25 SR Sociability	.34
13 IPS Asks evaluation	.35		
Factor II. Antagonism			
17 IPS Shows antagonism	.88	18 IPS Ego defensiveness	.90
18 IPS Ego defensiveness	.71	17 IPS Shows antagonism	.89
14 IPS Disagrees	.40	10 IPS Redirected aggression	.83
		9 IPS Self-analysis	.82
		13 IPS Asks evaluation	.65
		6 IPS Procedural suggestion	.49
		20 PR Assertiveness	.34
		24 SR Assertiveness	.32
		14 IPS Disagrees	.30
Factor III. Hedonic tone			
3 IPS Laughs	.84	3 IPS Laughs	.76
2 IPS Shows solidarity	.74	11 IPS <i>Few</i> , Gives information (—)	.65
16 IPS Tension increase	.58	2 IPS Shows solidarity	.61
10 IPS Redirected aggression	.56	20 <i>Low</i> , PR Assertiveness (—)	.37
		13 IPS <i>Few</i> , Ask evaluation (—)	.34
Factor IV. Acknowledgment			
5 IPS Shows agreement	.68	5 IPS Shows agreement	.77
4 IPS Acknowledges	.66	1 IPS Social acknowledgment	.47
		4 IPS Acknowledges	.46
		25 <i>Low</i> SR Assertiveness (—)	.30
Factor V. Tenseness			
15 IPS Shows inadequacy	.44	16 IPS Tension increase	.79
		15 IPS Shows inadequacy	.56
		7 IPS <i>Few</i> , Suggests solution (—)	.30
Factor VI. Disagreement			
14 IPS Disagrees	.46	14 IPS Disagrees	.55
10 IPS Redirected aggression	.35	6 IPS <i>Few</i> , Procedural suggestions (—)	.45

TABLE 5 (continued)

Males		Females	
Variable	Loading	Variable	Loading
Factor VII. Sociability			
21 PR Sociability	.71	23 Low PR Emotionality (—)	.76
22 PR Intelligence	.71	21 PR Sociability	.62
23 Low PR Emotionality (—)	.47	22 PR Intelligence	.52
20 PR Assertiveness	.30		
Factor VIII		Factor VIII	
25 SR Sociability	.66	26 SR Intelligence	.73
26 SR Intelligence	.56	13 IPS Asks evaluation	.33
24 SR Assertiveness	.40		
Factor IX		Factor IX	
6 IPS Procedural suggestion	.72	7 IPS Suggests solution	.57
13 IPS Asks evaluation	.67	24 Low SR Assertiveness (—)	.52
Factor X		Factor X	
11 IPS Gives information	.52	27 SR Emotionality	.41
9 IPS Self-analysis	.50	15 IPS Shows inadequacy	.33
		Factor XI	
		1 IPS Few, social acknowledgment (—)	.34

male data appears to be defined primarily on the residual common variance among the SRs after the variance associated with the PR and SR Assertiveness (in Factor I) has been removed. An equivalent factor does not occur in the female data. No additional parallelism is obvious in the remaining factors.

In summary, some parallelism is manifest in the comparison of factor analyses of IPS, PR, and SR data in male and female samples. The factors defined are not clear-cut in each case, and it is evident that sufficient numbers of variables are not available to resolve questions of differential meaning in the male-female data unequivocally. Similarly, the comparison is confounded by the fact that with the relatively small number of cases in the female data, differences of factorial structure may be due to sampling variation as well as to male-female differences. Nonetheless, the important fact is that there is a demonstrated empirical independence for at least six IPSs, corresponding to Factors I-VI, and that these areas of factorial independence are parallel for the male and female data. This makes the earlier indicated comparisons of mean performances more meaningful in the sense that it establishes that they are not all the function of some single underlying factor. However, while male and female groups appear to operate with similar independent areas of interaction, the amount of interaction displayed in these areas is not necessarily similar.

D. SUMMARY AND DISCUSSION OF DIFFERENCES

Factor I is clearly similar in the male-female comparison, and the central item in the definition of the factor (Total interaction rate) is not different in the profile comparison. However, there is a difference in amount of interaction initiated in one of the component items of the factor, IPS 12, Draws attention, with fewer such responses on the part of females.

Factor II, Antagonism, has as a central item IPS 17, Shows antagonism, which is higher in the female groups, but not significantly so. IPS 14, Disagrees, which is involved in this factor and is also the central item of Factor VI, is higher among the female groups than the male groups.

IPS 1, Social acknowledgment, is not found in parallel in the male and female comparison of factors. The saturation in the male data is very small in comparison to other IPSs, while in the female data there is considerably more variance involved. Female groups have significantly less behavior in this category.

In the female groups, Factor V, Tension, appears to be defined both by increase in tension, largely awkward pauses in the group, and also by individual displays of inadequacy and withdrawal. In the male groups, only the IPS 15, Shows inadequacy, occurs in a poorly defined parallel factor. In the comparison of male and female groups, IPS 15, Shows inadequacy, occurs more among the males than the females. Tension increase (IPS 16), on the other hand, appears to occur more often in the female groups.

It appears, thus, that the differences between males and females are of two types. First, there is some variation in the factorial structure, and second, there are differences in amounts of given categories of behavior. Here we shall not try to explain the differences through speculations or theories about what makes a male a male or a female a female in their behavior characteristics. What we are pointing to is the fact that through this medium of observation differences are demonstrable, and that these can be charted in a general abstract system of descriptive analysis. The limitation here, of course, is the fact that it is not known what the two samples involved represent. They were selected in similar manner from a presumed equivalent source population, but equivalence is assumed in such a case rather than demonstrated. This is not a unique criticism here, certainly, and the generality of the criticism has important ramifications. If there are qualitative differences between male and female groups on such basic descriptive characteristics as are used here, then extreme caution should be applied in the attempt to interpret from any situation to other situations in

which different sex groups or mixed sex groups occur. If the findings are attributable to sampling, the caution that arises is even more far-reaching. Then it is necessary to emphasize a necessity for even greater caution when generalizing from *any* situation to any other on which the selective processes of sampling may not be equivalent, including any of the factors that are associated with cultural variation or background variables. If interaction processes are associated with such factors directly, experiments that depend upon these processes can be given generality only through replication studies and not through assertions associated with significant findings in particular studies.

REFERENCES

1. BALES, R. F. *Interaction Process Analysis*. Cambridge, Mass.: Addison-Wesley, 1950.
2. BORGATTA, E. F. Rankings and self-assessments: Some behavioral characteristics replication studies. *J. Soc. Psychol.*, 1960, **52**, 279-307.
3. ———. A systematic study of interaction process scores, peer and self-assessments, personality, and other variables. *Genet. Psychol. Monog.*, 1962, **65**, 219-291.
4. BORGATTA, E. F., & BALES, R. F. Interaction of individuals in reconstituted groups. *Sociometry*, 1953, **16**, 302-320.
5. ———. The consistency of subject behavior and the reliability of scoring in interaction process analysis. *Amer. Sociol. Rev.*, 1953, **18**, 566-569.
6. BORGATTA, E. F., COTTRELL, L. S., JR., & MANN, J. H. The spectrum of individual interaction characteristics: An inter-dimensional analysis. *Psychol. Rep. Monog. Suppl.* **4**, 1958, 279-319.
7. VINACKE, W. E. Sex roles in a three-person game. *Sociometry*, **22**, 343-360.

Department of Sociology
The University of Wisconsin
Madison, Wisconsin

THE RELATION BETWEEN PARENTAL PRESCRIPTIONS FOR CHILD AND PARENT ROLES*¹

San Jose State College

GENE R. MEDINNUS

A. PROBLEM

Numerous writers (e.g., 2, 4) have commented on the lack of theoretical approaches to research in the field of child psychology. A variety of reasons have been offered to account for this situation, many of which have revolved around the notions of the traditional separation between child psychology and other areas of psychology, and the applied nature of much of the research in the former. However, increasing interest in personality theory has resulted from the shift in child research from essentially normative research (dealing primarily with such areas as intelligence and physical growth) to investigations aimed primarily at measuring the influences affecting personality and social development.

Three major theories have influenced child research: Freudian theory, behavior-social learning theory, and, more recently, role theory. While in terms of sheer number of researches, Freudian theory has stimulated the most research, the Freudian variables have proved not to be successful predictors of child behavior and personality. Learning theory, as it has been developed by the Yale school of psychologists, has embraced a large number of variables in attempting to explain the socialization process; it has been criticized, however, for its emphasis on behavior variables of a "molecular" nature. To date, little research in the child field has stemmed from role theory; several explanations for this can be found: firstly, role theorists and researchers have been concerned primarily with adult behavior and adult personality [see research concerns mentioned by Sarbin (10)], and secondly, role theory has not been stated with sufficient rigor to permit the ready deduction of testable hypotheses. Several investigations (3, 5, 6) presenting data relevant to role theory have appeared in the recent child literature; the findings of these investigations have not been in agreement, however. Leton (3) found a greater discrepancy between the attitude scores of parents

* Received in the Editorial Office on July 27, 1961.

¹ This research was completed under the sponsorship of the Elizabeth McCormick Memorial Fund of Chicago.

of poorly adjusted children than between parents of well adjusted children, suggesting that discrepancy between the parents in their role prescriptions for the child affects his adjustment. Medinnus (5) found little consistency in the extent of interparent agreement on three measures assessing parental attitude and parental perception of the child. In addition, low and statistically insignificant correlations were found between interparent agreement scores and measures of the child's adjustment and sociometric status in the first grade (6).

In the present paper, data are analyzed which pertain to the following assertion made in a discussion of the parent-child relation from the viewpoint of current role theory:

What is true is that any given member [of a system] will generally prescribe for others the reciprocal of the prescriptions he holds for his own role. . . . Thus . . . a mother may believe she should make her children obey, and reciprocally, that children should be obedient (1).

The statement is precise enough to permit testing. The notion, as applied to the parent-child system, can be stated as a hypothesis: *The parent will prescribe for the child the reciprocal of the prescriptions which he holds for his own (the parent) role.*

B. METHOD

1. Subjects

The 35 sets of parents in the investigation were all parents of five-year-olds who were subjects of a larger study dealing with school readiness and first grade adjustment. The socioeconomic status of the families was approximately evenly divided between the upper-lower and lower-middle classes according to Warner's Index of Status Characteristics. The mean ages of the mothers and fathers were 32.1 and 34.1 years, respectively, and the corresponding mean years of education were 12.0 and 12.2.

2. Measuring Devices

The instruments employed to assess parents' attitude with regard to the parental role and parents' prescription for the child role will be described.

Each of the parents completed a form of the Parent Attitude Research Instrument (PARI) developed at the National Institute for Mental Health. The mother form of the scale consisted of 23 subscales while 25 subscales comprised the father form; each of the subscales consisted of five items on the mother form and eight items on the father form. Following are examples

of the kinds of items included in the subscale labeled Fostering Independence: "Parents who allow their children to grow up with an idea that other people will often help them, encourage them to become failures." "Giving children very much help just spoils them." "A child should be taught never to depend on others for anything he could do himself." Although in general the items in the entire scale focus on child behavior, they tap attitudes with regard to the parental role in relation to the child. The responses to the PARI items were scored either 4, 3, 2, or 1, depending upon whether the response was "Strongly agree," "Somewhat agree," "Somewhat disagree," or "Strongly disagree," respectively. The particular PARI subscales used in the present analysis are listed in Table 1.

An aspect of the Q-sort technique employed in the larger study assessed the parents' prescription for child behavior. The details of the Q-sort procedure as well as the general findings have been described in another paper (7). Concerning the data relevant to the present analysis, each parent sorted independently two sets of items, one containing only positive traits or characteristics and the other only negative aspects of child behavior. Each pool consisted of 42 items typed on separate cards. In the "ideal sort" the cards were sorted into seven piles ranging from "most important for the ideal five-year-old to possess" to "least important for the ideal five-year-old to possess." The ideal sorts, then, yielded information with regard to the parent's value system or prescriptions for child behavior. The specific child behavior items used are listed in Table 1.

In the data analysis the Mann-Whitney *U* test was applied to test the significance of the difference between the parent attitude scale scores for parents whose placement of the child behavior items was at opposite ends of the Q-sort continuum. On the PARI subscale entitled Strictness, for example, the scores of the parents who ranked the Q-sort item "Is obedient; usually does what he is told to do" as important for the "ideal five-year-old" to possess were compared with the scores of those parents who ranked this item as not important.

C. RESULTS

It can be seen from Table 1 that only three of the differences were significant at the .05 level; two of these, however, were in the opposite direction from that predicted. For the mothers, eight of the ten differences were in the expected direction while for the fathers only five of the 12 differences were in the predicted direction.

TABLE 1
THE RELATION BETWEEN SEVERAL PARI SCALES AND CERTAIN Q-SORT ITEMS

PARI scales	Q-sort items	p
Mothers:		
Fostering dependency	Is very babyish when sick or hurt; likes to get a lot of sympathy from others.	ns
	Can be counted on to carry out a job which he is given to do.	ns
	Is willing to take care of his own possessions, such as toys.	ns
Approval of activity	Is noisy and loud.	ns
	Has a lot of energy and pep; doesn't get tired very quickly.	ns
	Is always on the go; restless.	ns
Expression of affection	Is able to give and accept affection from others.	ns
Strictness	Is obedient.	.05
Intrusiveness	Is willing to confide in others (parents, teacher, etc.).	ns
Acceleration of development	Is interested in learning new things; asks many questions.	.05
Fathers:		
Fostering dependency	Can be counted on to carry out a job which he is given to do.	ns
	Is willing to take care of his own possessions, such as toys.	ns
	Is very babyish when sick or hurt; likes to get a lot of sympathy from others.	ns
Approval of activity	Has a lot of energy and pep; doesn't get tired very quickly.	ns
	Is noisy and loud.	ns
	Is always on the go; restless.	ns
Expression of affection	Is able to give and accept affection from others.	ns
Strictness	Is obedient.	ns
Encouraging achievement	Is interested in learning new things; asks many questions.	.05
Fostering independence	Can be counted on to carry out a job which he is given to do.	ns
	Is willing to take care of his own possessions, such as toys.	ns
	Is very babyish when sick or hurt; likes to get a lot of sympathy from others.	ns

D. DISCUSSION

Assuming that the instruments employed in the investigation are adequate operational measures of the variables mentioned in the hypothesis, the results do not support the hypothesis. It would seem that the parents' Q-sorts of the behavior items describing the "ideal five-year-old" are clear measures

of their prescriptions for child behavior. Perhaps the parent attitude test scores are less adequate measures of the parents' prescriptions for the parental role. Several recent investigations have indicated that the PARI, the parent attitude scale used in the present study, is not a particularly sensitive instrument in differentiating between the attitudes of mothers of various subgroups of children. In a study by Moll and Darley (9), only three of the 23 PARI subscales differentiated among the mothers of three groups of children; two of the groups were composed of children with diagnosed speech problems and the third was a control group. The present writer found few PARI scales which differentiated between the fathers and mothers of well-adjusted first graders and the parents of poorly-adjusted first graders (8). A Q-sort approach using parent attitude test items in which parents are required to sort the statements in terms of the "ideal parent" might prove fruitful.

E. CONCLUSIONS

The purpose of the present investigation was to test the hypothesis that, with regard to the parent-child system, parents will prescribe for the child role the reciprocal of their prescriptions for the parental role.

Thirty-five sets of parents Q-sorted two pools of behavior items to describe the "ideal five-year-old." In addition, they completed the Parent Attitude Research Instrument. The Mann-Whitney *U* test was applied to the data to test the significance of the difference of certain PARI subscale scores between parents whose placement of appropriate child behavior items was at opposite ends of the Q-sort continuum.

Of 22 differences tested only three were significant at the .05 level; two of these were in the opposite direction from that predicted. A total of 13 of the 22 differences were in the expected direction. In general, then, the hypothesis was not confirmed.

REFERENCES

1. BRIM, O. G., JR. The parent-child relation as a social system: I. Parent and child roles. *Child Devel.*, 1957, **28**, 343-364.
2. KOCH, H. L. Child psychology. *Ann. Rev. Psychol.*, 1954, **5**, 1-26.
3. LETON, D. A. A study of the validity of parent attitude measurement. *Child Devel.*, 1958, **29**, 515-520.
4. McCANDLESS, B. R., & SPIKER, C. C. Experimental research in child psychology. *Child Devel.*, 1956, **27**, 75-80.
5. MEDINNUS, G. R. The consistency of inter-parent agreement on several measures. *J. Genet. Psychol.*, 1963, **102**, 145-150.
6. ———. The relation between inter-parent agreement and several child measures. *J. Genet. Psychol.*, 1963, **102**, 139-144.

7. ———. Q-sort descriptions of five-year-old children by their parents. *Child Devel.*, 1961, **32**, 473-489.
8. ———. The relation between several parent measures and the child's early adjustment to school. *J. Educ. Psychol.*, 1961, **52**, 153-156.
9. MOLL, K. L., & DARLEY, F. L. Attitudes of mothers of articulatory-impaired and speech-retarded children. *J. Speech Hearing Dis.*, 1960, **25**, 377-384.
10. SARBIN, T. R. Role theory. In *Handbook of Social Psychology*, G. Lindzey, Ed. Cambridge, Mass.: Addison-Wesley, 1954. Pp. 223-258.

Department of Psychology

San Jose State College

San Jose 14, California

A NOTE ON CATTELL'S RADICALISM (Q_1) SCALE*

Department of Psychology, University of Pittsburgh

A. W. BENDIG

A. INTRODUCTION

One of the purportedly best measures of the personality trait of "radicalism-conservatism" is the Radicalism (Q_1) scale included in Cattell's 16PF questionnaire (9). There are 10 trichotomous-response items in each of the two forms (A and B) of the 16PF battery and the questionnaire manual recommends administering both forms to Ss and summing scores from the parallel scales in each form to yield more reliable factor scores. The manual reports a corrected split-half reliability of .71 (450 men) for the summed score and a correlation of .43 between the Form A and Form B Radicalism scores for (presumably) another sample of 390 Ss. Parenthetically it might be noted that applying the Spearman-Brown formula to this latter half-length correlation gives a reliability estimate of .60 for the summed scores.

Little has been reported to date on the psychometric characteristics of this scale when used with college Ss. The present paper reports on score reliabilities, item factor validities, and correlations with other personality scales for samples of men and women college students.

B. PROCEDURE

1. Items

The 20 "radicalism" (Q_1) items were taken from Forms A and B of Cattell's 16PF inventory (9) with 10 items coming from each form. These items were imbedded in a questionnaire containing items from a number of other scales including the Extraversion and Neuroticism scales of Eysenck's Maudsley Personality Inventory (5, 10), a 20-item abbreviated form of Taylor's Manifest Anxiety Scale (2, 12), a 22-item version of the California F (Authoritarianism) scale (6), and a 28-item form of the Bass "Social Acquiescence" scale (1). The Ss responded to the items with dichotomous responses for the MPI, MAS (true-false), and F-scale (agree-disagree) items and with trichotomous responses for the Acquiescence (agree-uncertain-disagree) and Radicalism (response alternatives as given in the 16PF booklet) items.

* Received in the Editorial Office on July 27, 1961.

2. Subjects

The questionnaire was administered during a regular class session to 192 students enrolled in four evening sections of a one-semester course in introductory psychology. The 112 men and 80 women varied widely in age and background with some *Ss* being full-time freshmen and sophomore liberal arts students and other being part-time undergraduate students with a full-time occupation during the day. The instructions to these *Ss* emphasized that this was an experimental form of a questionnaire and that their cooperation was being requested in standardizing the scales.

3. Analysis

In all of the subsequent statistical procedures the data from the two sex groups were separately analyzed because of possible sex differences in "radicalism." The Q_1 item responses of the *Ss* were separately scored for the Form A and Form B items and also summed for a total score. The reliability (internal consistency) of each score was estimated by Kuder-Richardson Formula 20 and the reliability of the total score was also estimated by correlating the separate Form A and Form B scores and applying the Spearman-Brown formula to this intercorrelation. The sex groups were tested for significant differences in means and variance on each of the three Q_1 scores.

The 20 "radicalism" items were intercorrelated by the usual product-moment method and item means and standard deviations obtained. The two matrices of item intercorrelations (one matrix from each sex group) was factor analyzed by the complete centroid method and the item loadings on the first centroid obtained as the best measure of the item saturations with the "radicalism" factor.

Finally, the *Ss'* scores on Q_1 Form A, Form B, and total were correlated (product-moment) with their scores on the other five personality scales (Extraversion, Neuroticism, Manifest Anxiety, Authoritarianism, and Acquiescence) and these correlations were tested for significance.

C. RESULTS

The KR-20 reliabilities of the Form A, Form B, and total scores were .31, .22, and .42 for the men and were .40, .36, and .56 for the women. The interform correlations for the sex groups were .26 and .40. Applying the Spearman-Brown formula to these correlations gives estimated total score reliabilities of .41 (men) and .57 (women) which are almost identical with those obtained from use of the Kuder-Richardson formula (.42 and .56).

Although there were no sex differences in variances for any of the three scores (F 's = 1.02, 1.29, and 1.25), the men averaged significantly higher on each score: the difference in means being significant at the .01 level for Form A and total scores (t 's = 3.05 and 3.23) and at the .05 level for the slightly less reliable Form B scores (t = 2.23).

The results from the analysis of the individual Q_1 items can be found in Table 1. The first centroid factor accounted for an average of 7.2 of the total item variance for the men and 11.0 per cent for the women. There are some sex differences in the factor saturations of individual items, but, in

TABLE 1
ITEM ANALYSIS OF 16PF RADICALISM (Q_1) ITEMS

Item number and form	Men			Women		
	Mean	SD	Centroid	Mean	SD	Centroid
20A	.89	.92	.30	.95	.92	.30
21A	.68	.84	.34	.56	.80	.50
45A	1.28	.83	.42	.72	.81	.27
46A	.73	.82	.25	.70	.81	.32
70A	.86	.90	-.22	.85	.84	-.08
95A	.83	.84	.22	.68	.80	.46
120A	.84	.76	.12	.80	.68	.22
145A	1.53	.60	.06	1.58	.54	.35
169A	1.04	.85	.30	.58	.70	.48
170A	1.35	.74	.38	1.19	.74	.08
20B	.67	.85	.36	.62	.81	.36
21B	.36	.67	.30	.65	.79	.26
45B	1.77	.57	.13	1.56	.76	.07
46B	1.07	.81	-.05	1.02	.82	.15
70B	.48	.80	-.25	.36	.71	.22
95B	1.82	.50	.14	1.76	.60	.25
120B	1.27	.68	.19	1.15	.69	.30
145B	1.41	.73	.43	1.18	.80	.53
169B	1.19	.74	.27	1.18	.77	.53
170B	.97	.77	.15	.85	.73	-.28

general, the loadings are similar. The similarity was quantified by using the index developed by Wrigley and Neuhaus (13), which is the sum of the cross-products of item loadings between the groups divided by the geometric mean of the sums of squared item loadings within the groups, and the index value was found to be .73. This indicates moderate similarity in factor loadings for the two sex groups, but suggests that certain items (notably 145A and 170A) are factorially valid only for one sex group. Considering items with negative loadings as candidates for elimination from the scales, items 70A, 46B, 70B, and 170B appear to be ripe for replacement or elimination. It should be noted that Form B was less reliable than Form A

and three of these four items are from Form B. Comparing sex differences in item means shows items 45A and 169A to contribute almost one-half of the significant difference in mean total Q_1 scores of men and women Ss noted above.

Table 2 gives the correlations of the Q_1 scores with the other personality scores for the separate sex groups. Radicalism is not correlated with Extraversion within either sample. Radicalism shows low negative correlations with Neuroticism which are statistically significant for three of the six correlations. However, Radicalism is not significantly correlated with Manifest Anxiety in spite of the fact that Neuroticism and Manifest Anxiety were

TABLE 2
CORRELATIONS BETWEEN RADICALISM (Q_1) AND OTHER PERSONALITY SCALES

Personality scales	Men			Women		
	Form A	Form B	Total	Form A	Form B	Total
MPI Extraversion	.08	-.07	.01	.02	-.08	-.03
MPI Neuroticism	-.23*	-.07	-.19*	-.21	-.15	-.22*
Manifest Anxiety	-.17	-.04	-.14	-.08	-.05	-.08
Authoritarianism	-.16	-.17	-.21*	-.34**	-.19	-.32**
Acquiescence	-.06	-.03	-.09	-.28*	-.25*	-.32**

* $P < .05$

** $P < .01$

highly correlated ($r = .71$) in both sex groups. Radicalism and Authoritarianism scores had a small, but significant, negative relationship which was somewhat larger for women ($r = -.32$) than for men ($r = -.21$). Radicalism was correlated with Acquiescence for women ($r = -.32$), but not for men ($r = -.09$) although the difference between these two correlations was not significant ($z = 1.62$).

D. DISCUSSION

The reliability of the 16PF Radicalism (Q_1) scale is considerably less than could be desired for use with college Ss, particularly for men. It is highly likely that college Ss are more homogeneous for this trait than were the norm groups used by Cattell in his standardization of the 16PF inventory, but it should be noted that the general proposition that college students represent a more homogeneous group as to personality traits (particularly those involving social attitude factors like "radicalism") than does the general population has never been adequately documented. However, elimination of the four items noted above that showed a negative factor loading in at least one of the sex groups should improve the internal consistency and

factor purity of the scale. Three of these items, along with 45B which had the smallest positive loadings, have little face validity as measures of "radicalism" when this factor is regarded as a social or political attitude dimension. The 16PF Q_1 scale appears to be reliable enough to be used as a marker variable in personality research, but its usefulness in individual diagnosis whenever the 16 PF is administered to college Ss is questionable.

The correlations of the Q_1 scale with other personality measures present some contradictions and interesting speculations. The low, but statistically significant, negative correlations between the MPI Neuroticism scale and Q_1 contradicts the reported low positive correlation between the same Neuroticism scale and a scale of "radicalism" developed by Eysenck (4). Two explanations of this discrepancy are immediately apparent: either the previous or the present results are attributable to sampling error, or Cattell's and Eysenck's scales are not measuring the same personality factor. Only further research can determine which possibility is more nearly correct. However, both studies agree that the MPI Extraversion scale is not related to either Cattell's or Eysenck's "radicalism" factors.

It is noteworthy that while Neuroticism showed some significant correlations with Radicalism, Manifest Anxiety, which correlates highly with Neuroticism, did not, although the algebraic signs of the correlations are the same in all cases. There is evidence that the MAS is less contaminated by a "falsification" factor than is the Neuroticism score, but is more highly (and negatively) loaded with the "extraversion" factor (3, 7). An assumption that the Q_1 scale is positively loaded with "falsification" would explain its lower correlations with MAS as would the presence of extraneous "extraversion" variance in the MAS scores.

The expected negative correlations between Radicalism and Authoritarianism were found within both sex groups and the slightly lower correlations for men may be due to the lower reliability of the Q_1 scale in this sex group. However, the differential reliability of the Q_1 scale seems less adequate as an explanation of the much larger discrepancies between the sex groups in Radicalism-Acquiescence correlations.

The Bass-Acquiescence scale is scored by counting the number of "agree" responses to a heterogeneous collection of proverbs and folk-sayings when the response options are "agree-uncertain-disagree." Messick and Jackson (11), among others, have pointed out that a response set of agreeing with or accepting personality items regardless of their content can introduce irrelevant variance into scales, like the Authoritarianism scale, where the keying of all of the items is in the same direction ("true"). This response set can hardly

explain the significant negative correlation between Radicalism and Acquiescence for women, nor the apparent sex differences, since the Q_1 scale items are deliberately balanced in scoring direction to eliminate such effects. An alternative response set interpretation is that the variable of "social desirability" may be responsible for the correlations, but to apply this concept to agreement with proverbs appears rather tenuous. Perhaps the most obvious interpretation is most nearly correct: "radical" women tend to disagree with proverbial statements while "conservative" women tend to agree, but this relationship is not true for male Ss. The underlying dynamic may be solely within the Ss, i.e., "radical" women may tend also to be negativistic and to reject all generalities like those embodied in most proverbs, while "conservative" women may be accustomed to thinking in proverbial terms where some generalization about behavior is succinctly stated in attractive phraseology. Significant correlations between Acquiescence scores and the sex of the Ss has previously been reported (8) with women scoring higher, which suggests that "proverbial" thinking is more common among women college Ss.

E. SUMMARY

The 20 items of Cattell's 16PF Radicalism (Q_1) scale, along with items from five other personality scales, were administered to 192 college students (112 men and 80 women). The reliability of the Q_1 scale was found to be relatively low (.41 for men and .57 for women) and a factor analysis of the items suggested that the elimination of several items would improve the scale. Radicalism scores were not correlated with Eysenck's Extraversion scale or with Taylor's Manifest Anxiety Scale, and had low negative correlations with Eysenck's Neuroticism scale and the California Authoritarianism scale for both sex groups. Radicalism correlated negatively with the Bass Social Acquiescence scale for women ($r = -.32$), but not for men ($r = -.09$).

REFERENCES

1. BASS, B. M. Development and evaluation of a scale for measuring social acquiescence. *J. Abn. & Soc. Psychol.*, 1956, **53**, 296-299.
2. BENDIG, A. W. The development of a short form of the Manifest Anxiety Scale. *J. Consult. Psychol.*, 1956, **20**, 384.
3. ———. Extraversion, neuroticism, and manifest anxiety. *J. Consult. Psychol.*, 1957, **21**, 398.
4. ———. Extraversion, neuroticism, radicalism, and tendermindedness. *J. Consult. Psychol.*, 1958, **22**, 292.
5. ———. College norms for and concurrent validity of the Pittsburgh revisions of the Maudsley Personality Inventory. *Psychol. Newsltr.*, NYU, 1959, **10**, 263-267.

6. ———. An inter-item factor analysis of the California F (Authoritarianism) scale. *J. Psychol. Studies, NYU*, 1959, **11**, 36-40.
7. ———. Factor analyses of "anxiety" and "neuroticism" inventories. *J. Consult. Psychol.*, 1960, **24**, 161-168.
8. ———. A factor analysis of "social desirability," "defensiveness," "lie," and "acquiescence" scales. *J. Gen. Psychol.*, 1962, **66**, 129-136.
9. CATTELL, R. B., SAUNDERS, D. R., & STICE, G. Handbook for the Sixteen Personality Factor Questionnaire (rev. ed.) Champaign, Ill.: Institute for Personality and Ability Testing, 1957.
10. EYSENCK, H. J. Manual of the Maudsley Personality Inventory. London: Univ. London Press, 1959.
11. MESSICK, S., & JACKSON, D. N. The measurement of authoritarian attitudes. *Educ. Psychol. Meas.*, 1958, **18**, 241-253.
12. TAYLOR, J. A. A personality scale of manifest anxiety. *J. Abn. & Soc. Psychol.*, 1953, **48**, 285-290.
13. WRIGLEY, C. F., & NEUHAUS, J. O. The matching of two sets of factors. *Amer. Psychologist*, 1955, **10**, 419.

Department of Psychology
University of Pittsburgh
Pittsburgh 13, Pennsylvania

CONVERGENT AND DISCRIMINANT VALIDATION OF A CHILD-REARING SURVEY QUESTIONNAIRE*¹

Rip Van Winkle Foundation

THOMAS J. BANTA, LEOPOLD O. WALDER, AND LEONARD D. ERON

A. PURPOSE

The success of child-rearing survey questionnaires depends on each respondent's taking the role of a dependable scientist-surrogate. Ordinarily the respondent is used as an observer of his own behavior, of the behavior of his child, and sometimes of his spouse. Data collected from only one observer (e.g., 4) leave open to question whether variability in responses is due to respondent differences or whether the respondent is accurately observing and reporting on the characteristics and behaviors he is instructed to observe. By interviewing both mothers and fathers, rather than just one parent, data necessary to attack such a problem are provided. Campbell and Fiske (1) have presented a method which is quite relevant for this problem, and the procedures they recommend for evaluating convergent and discriminant validity of psychological tests are applied here to scores derived from a child-rearing questionnaire.

The parents of 50 third-grade children in a semirural area in the Hudson Valley of New York were interviewed with a questionnaire designed so that two types of measures were derivable from the protocols. The first type of measure was constructed so that the father and mother rated independently the behaviors and characteristics of each other, of their child, and of the home environment. It was expected that they would agree on these independent judgments. An analysis of agreement will be presented on the following seven scales: (a) Father's Aggression, (b) Mother's Aggression, (c) Home Aggression of Child, (d) Social Isolation of Child, (e) Confessing by Child, (f) Dependence Avoidance of Child, and (g) Parental Disharmony.

* Received in the Editorial Office on August 7, 1961.

¹ This is an expanded version of a paper delivered at the 1960 Eastern Psychological Association meetings in a symposium titled "Some Methodological Considerations in Child-rearing Research." The research program under which this study was carried out has been supported by grant M1726 from the United States Public Health Service. The authors have greatly benefited from discussions and suggestions provided by E. K. Beller, D. T. Campbell, K. I. Howard, M. Hunter, M. M. Lefkowitz, H. Levin, T. Nelson, and D. T. Vernon.

It is convenient to think of these seven scales as "judgment" scales (see 5, pp. 45-49) since both parents were asked to judge an aspect of the child or of the home environment. Correlations between parents on each of these seven judgment scales are thus expected to be high and limited only by the reliabilities. It will be demonstrated below that the multitrait-multimethod matrix analysis can be applied in a straightforward manner to these seven scales.

The second type of measure was constructed so that the father's and mother's responses indicated to what extent each parent admitted that he himself possessed a given trait. It was not expected that each of these traits would necessarily be similar in both parents, although they might be as a matter of empirical fact: (*h*) Parental Rejection, (*i*) Parental Punishment for Aggression, (*j*) Parental Restrictiveness, and (*k*) Parental Aspirations for Child.

These last four scales will be referred to as "response" scales—they were intended as measures of the person responding, and no attempt was made to get two independent measures of the same trait. These scales do not have the judgmental character which the above seven have; and for this reason it was not expected that they would generate data which would meet the convergent and discriminant validation criteria.

All the above scales have gone through the well known stages of guess work, loose conceptualizing, theorizing, item writing, pretesting, and, finally, homogeneous item selection (2). In the sense of a naive operationalism, empirical definitions of each scale were provided. However, identifying scales with names tends to impute meaning in excess of that justified by strict operationalism. One aspect of this excess meaning is examined here. The two major questions being raised are: do the judgment scales (A-G) show the patterns of interrelations required by their a priori classification; and do the response scales (H-K) show a substantially different pattern of interrelations as predicted by their a priori classification?

If the response scales do not have a substantially different pattern and tend to fit the multitrait-multimethod matrix validity requirements, the following alternative interpretation is open. Although the four response scales were intended as measures of parental traits, each scale in fact concerns the parent as he relates to the child. Thus, variability may be primarily a function of the child to whom the parent is relating. In this case the scale is a measure of a trait of the child. Where response scales are involved, validation is not directly affected by the correspondence between parents. When the correlations between parental traits is high, however, it may be

due to innumerable factors: marital selection, shared values, interaction processes, etc.; or it may be the trait of the child which elicits similar responses in both parents, in which case the scale would be more reasonably considered a judgment scale, a reverse in our earlier logic.

Thus, the multitrait-multimethod analysis has relevance to the question of what the respondent is talking about: whether he is talking about himself, his child, or both simultaneously.

B. DESCRIPTION OF SCALES

Below are presented the seven judgment scales and the four response scales used in the present analysis. The number of items, the mean item-total correlations (\bar{r}_{it}), the intended definition, and an example is given for each scale. The interviewing procedure was such that at all times the interviewer held the questionnaire and all items were read to the respondent. It was then the interviewer's job after reading the printed item to check or code the response provided by the respondent.

1. Judgment Scales

a, b. Father's and Mother's Aggression. Six items. Father's self-rate $\bar{r}_{it} = .57$, father's rating of mother $\bar{r}_{it} = .63$, mother's self-rate $\bar{r}_{it} = .56$, mother's rating of father $\bar{r}_{it} = .69$. Tendency of the parent to display aggressive behavior in situations which often elicit aggressive responses.

Each parent rates himself and he is rated by the other parent on each of these situations.

Example: Suppose you are driving a new car and get into an accident which is clearly the other driver's fault. Would you show your anger if:

- | | | |
|---|-----|----|
| 1. He says, "What's the matter; can't you drive?" | Yes | No |
| 2. He apologises? | Yes | No |
| 3. He says, "I'm not going to say anything until I see a lawyer?" | Yes | No |
| 4. He laughs it off? | | |

c. Home Aggression of Child. Thirteen items. Father's $\bar{r}_{it} = .66$, mother's $\bar{r}_{it} = .63$. Frequency of acts whose goal response is injury to another object.

Example: How often does NAME say mean things to another child? 0—never, 1—rarely, 2—occasionally, 3—pretty often, 4—frequently, 5—daily. (Response card with definitions of each alternative.)

d. Social Isolation of Child. Four items. Father $\bar{r}_{it} = .55$, mother's $\bar{r}_{it} = .58$. Frequency and type of contacts with peers outside of school.

Example: About how many children of NAME'S age live in the neighborhood? Would you say about one or two, three to five, or more than 5? 3—none, 2—1-2, 1—3-5, 0—5+.

e. Confessing by Child. Two items. Father's $\bar{r}_{it} = .84$, mother's $\bar{r}_{it} = .82$. Extent to which a child behaves as if he were monitoring his own behavior in a way he thinks a socializing agent would. These items are closed-end versions of two questions used by Levin and Sears (3).

Example: When NAME has done something naughty and you haven't seen him do it, does he come and tell you about it without your having to ask him? 4—all the time, 3—most of the time, 2—some of the time, 1—almost never, 0—never.

f. Dependence Avoidance of Child. Three items. Father's $\bar{r}_{it} = .80$, mother's $\bar{r}_{it} = .74$. Inability or unwillingness of the child to accept or rely on others.

Example: Does NAME seem embarrassed when you take his part? 0—no, 1—sometimes (and don't know), 2—yes.

g. Parental Disharmony. Ten items. Father's $\bar{r}_{it} = .54$, mother's $\bar{r}_{it} = .54$. The extent of disharmony in the home as measured by disagreement about various specific matters of importance in a family; items dealing with arguments between husband and wife, and presumptive evidence such as separation, divorce, amount of time spent together, etc.

Example: Are you satisfied with how your SPOUSE handles money? 0—yes, 1—sometimes (and don't know), 2—no.

2. Response Scales

h. Parental Rejection. Ten items. Father's $\bar{r}_{it} = .60$, mother's $\bar{r}_{it} = .55$. The number of changes in the child's behavior (aggression excluded) and characteristics desired by the socializing agent. The parent is considered to be accepting when he indicates by his choice of alternatives on these questions that his needs are satisfied by the child; "I like you the way you are."

Example: Do you think NAME wastes too much time? 2—yes, 1—sometimes (and I don't know), 0—no.

i. Punishment for Aggression. Twenty items. Father's $\bar{r}_{it} = .54$, mother's $\bar{r}_{it} = .42$. Rewards and punishments of various *intensities* administered by socializing agents contingent upon the child's aggressive behavior.

Example: What do you usually do when NAME is rude to you? (Verbatim response and probes recorded, subsequently rated out of context of item independently, with good agreement, by three judges on a scale from 1 to 7.)

1—rewarding aggression, 2—don't do anything, 3, 4, 5, 6, and 7 grades of punishment from mild to severe.

j. *Parental Restrictiveness*. Three items. Father's $r_{11} = .62$, mother's $r_{11} = .60$. Extent to which the child defines behaviors which are proper for him to perform rather than the socializing agent defining proper behaviors for the child. Restrictiveness refers to the amount of control exercised by the agent over the child.

Example: Do you make NAME finish up everything he is served at mealtime? 2—yes, 1—sometimes (and don't know), 0—no.

k. *Parental Aspirations for Child*. One item. Level of education hopes child will attain.

Example: How much education do you expect NAME to get? 1—high school + specialized training, or college, 2—high school graduate or less.

C. RESULTS

The matrix of intercorrelations resulting when each of the several traits is measured through our two sources of data, the mother and the father, is presented in Table 1.² This matrix is referred to as the multitrait-multimethod matrix (1).

The convergent validities in the multitrait-multimethod matrix are along the italicized diagonal in the lower half of the table. These are the resulting correlations derived from two attempts to measure the same trait.³ For example, father's rating of Social Isolation of Child correlates .42 with mother's rating of the same trait. Moreover, this is higher than any off-diagonal correlations involving this construct. Such a finding is evidence for the discriminant validity of this construct since the two methods (mothers and fathers as informants) yielded scores on Social Isolation of Child which relate higher to each other (convergent validity) than to other constructs (discriminant validity). This evidence strongly supports the scale's status as a judgment scale with unique content.

Less desirable findings are associated with the tests designed to assess the

² Initially these scales were made up on the basis of item-total correlations for mothers and fathers separately. As it turned out, some scales contained different items for fathers and for mothers. For this reason, the matrix was run two ways: (1) utilizing scales with incomplete overlap of items between mothers and fathers, and (2) utilizing identical items in each score for mother and father. The difference in the pattern and magnitude of correlations, and interpretation of the matrix was minimal. The matrix in Table 1 was computed with identical items in each score.

³ Note that this a priori requirement applies only to the judgment scales. By definition, in response scales no attempt is made to get two independent measures of the same trait.

TABLE 1
MULTITRAIT-MULTIMETHOD MATRIX BASED ON MOTHER AND FATHER SCORES^a
(N = 50)

	Father's scores											Mother's scores										
	A	B	C	D	E	F	G	H	I	J	K	A	B	C	D	E	F	G	H	I	J	
Father's scores																						
Father's Aggression	A																					
Mother's Aggression	B	06																				
Home Aggression of Child	C	30	00																			
Social Isolation of Child	D	06	05	-14																		
Confessing by Child	E	-04	07	-04	-05																	
Dependency Avoidance	F	02	02	30	-11	-14																
Parental Disharmony	G	-05	-15	12	-01	-27	17															
Parental Rejection	H	37	-13	46	-02	-58	43	40														
Parental Punishment for Agg.	I	14	-04	43	12	-35	23	19	44													
Parental Restrictiveness	J	-08	-21	-01	25	-19	12	-01	05	13												
Parental Aspirations for Child	K	-16	17	-12	10	-05	-07	01	-05	-12	-03											
Mother's scores																						
Father's Aggression	A	30	23	-06	-07	-02	-09	-09	06	30	-20	-11										
Mother's Aggression	B	30	17	17	06	-15	13	39	22	11	16	02	-04									
Home Aggression of Child	C	-05	-03	28	-16	-17	11	09	15	42	-33	04	-05	-02								
Social Isolation of Child	D	-18	-07	06	42	-13	02	03	06	22	19	08	07	-11	01							
Confessing by Child	E	-05	02	-42	-13	25	05	-02	-20	-25	-02	11	08	-06	-22	-28						
Dependency Avoidance	F	-16	-23	05	01	-17	19	29	15	-15	-01	09	-40	24	14	-09	-24					
Parental Disharmony	G	00	-25	13	-05	-30	-07	47	22	31	-12	25	21	09	20	01	09	-06				
Parental Rejection	H	13	08	36	-07	-27	24	11	64	32	-10	05	21	-01	18	06	-14	00	11			
Parental Punishment for Agg.	I	09	26	30	-05	-10	09	07	09	42	-09	09	35	11	51	01	-08	-05	28	35		
Parental Restrictiveness	J	13	05	17	16	-01	07	10	16	11	34	10	17	15	-31	-04	17	-11	-01	04	19	
Parental Aspirations for Child	K	01	08	12	15	-22	10	11	14	05	07	52	-19	-09	09	20	05	12	13	22	02	

^a For $df = 48$, $r = .27$ is significant at 5% level; $r = .35$ is significant at 1% level.

Note: decimal points omitted.

father's self-rating of aggression and mother's rating of father's aggression. The convergent validity of .30 is not the highest correlation associated with either of these two measures. Father's self-rating of aggression correlates with his Parental Rejection Score .37; mother's rating of father's aggression correlates —.40 with her rating of the child's Dependence Avoidance and .35 with her rating of her own Punishment for Aggression. The three heterotrait-monomethod correlations just mentioned are too high for satisfactory discriminant validity. They suggest that there is more in common within the parent across traits than within a trait across parents. In addition, the convergent validity for Father's Aggression was no higher than one of the heterotrait heteromethod correlations, i.e., the mother's self rating of her own aggression correlates .30 with the father's self rating of his aggression. This means that shared variance reflected in the convergent validity is no greater than variance shared by the two parents' independent ratings of two traits. As an attempt at building a judgment scale, the Father's Aggression scale must be regarded as a failure. Either more work must be done to enhance the convergence of these judgments, or consideration must be given to it as a response scale.

Of the seven judgment scales considered here, only Social Isolation of Child and Parental Disharmony show satisfactory, discriminant validity in the monomethod blocks of correlations. These two scales are alone among the seven judgment scales whose convergent validities were significant at the .01 level. This is not due to differences in reliability since the two scales are not particularly different from the other judgment scales in either mean item-total correlation or test length.

The multitrait-multimethod validation requirements for the judgment scales are summarized as follows: each convergent validity (on the italicized diagonal) must exceed correlations off the diagonal in the row and column of the convergent validity; further, it is expected that the differences between convergent validities and heterotrait-heteromethod values should be greater than differences between convergent validities and heterotrait-monomethod values. Both kinds of differences are relevant to discriminant validity but it is wise to make the distinction between heterotrait-heteromethod values and heterotrait-monomethod values, since the latter are quite characteristic of individual differences research, and typically constitute the greater threat to discriminant validity. None of the above requirements apply directly to the a priori response scales. But, if a response scale conforms to these validity requirements as well as or better than the judgment scales in the matrix, then they might reasonably be reinterpreted as judgment scales.

D. DISCUSSION

This study was done in an effort to provide a basis for retaining, modifying, or discarding each of the scales for future research. Specific scales will now be discussed in the order in which they appear in Table 1. The Parental Rejection scale will be discussed in greatest detail since it raises questions which illustrate the impact of the multitrait-multimethod matrix on the authors' present and future research.

The fact that the scores derived from two methods did not converge on either Father's Aggression or Mother's Aggression and did not diverge from other traits made these scales suspect. The items labelled Father's Aggression did not yield responses from the two respondents which showed an acceptable pattern of convergence and distinctiveness. These particular items have been dropped from the questionnaires used in subsequent research because of their failure as judgment scales.

Discriminant validity for the Child's Home Aggression score was defective, with 11 of these correlations higher than the convergent validity. This validity picture could be improved by considering Parental Punishment scores (originally conceived as parental response scales) as indicative of the same construct tapped by Child's Home Aggression ratings. However, the theoretical consequences of combining these into a single index are so undesirable that considerable energy has been given to improving discriminant validity for these two concepts in the child-rearing survey questionnaire now being used in this research program.

The scores on Social Isolation of Child provided good discriminant validity as well as good convergent validity. This evidence argued strongly for keeping this judgment scale intact for future research.

The independent mother and father ratings of Confessing by Child had very poor discriminant validity, as well as poor convergent validity. Dependence Avoidance fared no better than the Confessing measure. In fact, a number of correlations with Dependence Avoidance, even in the heterotrait-heteromethod block, were much higher than the Dependence Avoidance convergent validity.

Parental Disharmony scores did quite well both on convergent and discriminant validity. Although there are some significant correlations in the column and row associated with this convergent validity, no correlations are numerically higher. All 10 items of the Parental Disharmony scores have been retained in the new questionnaire.

The Parental Rejection scores also have excellent convergent validity and,

by and large, very good discriminant validity; in particular, the mother's score correlates much lower with all other variables in the matrix, whereas the father's score does very well with the exception of some correlations (all heterotrait-monomethod values within the father interview) ranging from .37 to .58 in magnitude. The Parental Rejection scale was conceived as a response scale but the evidence here makes it plausible that the scores may as easily be interpreted as ratings of the child's behavior and characteristics and thus as a judgment scale.

The scores on Parental Restrictiveness have no correlations numerically equal to or greater than the convergent validity; thus, it has been retained as is. Finally, the Aspirations for Child measure is probably the best substantiated score in the matrix with regard to discriminant validity. None of these correlations even in the monomethod triangles approach the convergent validity of .52. Both Parental Restrictiveness and Aspirations for Child appear to be valid judgment scales in spite of their intended status as parental trait indicators.

There are two main reasons for looking more closely at the Parental Rejection scale. One is the kinds of validity that have been established through inspection of the multitrait-multimethod matrix. The second reason is the significant relation between both mother's and father's Rejection scores and a peer-rating measure of aggression in the school. The Rejection scores correlate .40 and .31 with this independently obtained child aggression rating (2).

Two simple theoretical positions are indicated. The first is the parent-as-socializing-agent view. The Rejection measures are used as indicators of the parental orientation toward the child. Such orientations of parents produce expressions of aggressive behavior in the child which are reflected in the peer ratings. The second position, and a thoroughly tenable one in the light of these data, is that the Rejection measure is not a reflection of parental orientations, but rather a reflection of the behavior and characteristics of the child, which are highly related to behaviors and characteristics revealed in the peer-rating scores in the classroom. According to this view, these scores might very well be relabelled as "Child Rejectability" rather than Parental Rejection.

The difference is basic since we are dealing here with the model for interpreting these particular scores. Returning to our earlier terminology of response vs. judgment tasks, as distinguished by Torgerson (5), a Parental Rejection view of these scores is a case of the response approach to scaling.

An interpretation of these scores as Child Rejectability scores is an illustration of the judgment approach to scaling.

At present, Rejection and Rejectability are inferred from the same set of operations. A beginning in the direction of establishing separate operations for distinguishing Rejection from Rejectability is suggested by some differences in the wording of items in the present index. Of the 10 items in the index, seven of them have the words "bothered," "satisfied," "displeased," "pleased," or "annoyed." All of these refer to the parent's *feelings* about the child's behavior. For example: "Are you satisfied with NAME'S manners?" or "Are you pleased with the quality of NAME'S schoolwork?" The remaining three items refer more explicitly to evaluations of the child rather than the parent's feeling. For example, "Is NAME too forgetful?" or "Do you think NAME wastes too much time?" However, examination of the item—total correlations for the mothers and fathers—provides no evidence for differential responding to these two types of items. Thus, no discriminant validity is in evidence for the two sets of scores.

The item-writing phase of the construction of this Rejection scale was guided by the following definition: "The number of changes in the child's behavior and characteristics desired by the socializing agent." Changes desired with respect to aggressive behaviors were deliberately avoided in order to optimize independence between Parental Rejection and interview measures of aggression. What has been done in our subsequent work, however, is to bring this issue in contact with data in the following way. The emphasis is now on discriminant validity—how broad is the concept of rejection? We have started out by setting up a new but intimately related concept, Parental Complaint. The original Rejection scale items are parental complaints about nonaggressive behaviors. Now we have added items which enable the parent to indicate a complaint about ostensibly aggressive behaviors. The reason for this is to permit empirical determination of whether respondents do discriminate between complaints about nonaggressive behaviors and complaints about aggressive behaviors. If they are one and the same thing, then we fully expect a correlation between Parental Complaint of either kind with aggression scores derived independently, say from peer ratings in the classroom. Only if these two sets of items discriminate between themselves and discriminate with respect to the outside measure of aggression do we have any evidence that these two types of parental complaint are at all separate. It is predicted, of course, that Parental Complaint about aggressive behavior will relate higher to an outside measure of aggression than Parental Complaint about nonaggressive behavior if the ostensible meanings of these items hold. The items have also been extended to cover very general kinds of parental

complaints, even allowing the parent to complain about *other* people treating a child unfairly. This extension will permit a determination of the pervasiveness of the parent's inclination to complain.

It is important to note that the procedures and analytic devices put to use here are not in any way final with regard to the constructs that have been inspected for validation. There is a succession of empirical hurdles with which constructs will be confronted before they enter directly into a theoretical development in this area. We have tried to indicate how the analysis of data collected in previous years has influenced the kind of data now being collected. When the present field work is completed a series of multitrait-multimethod matrices will be used to evaluate further the validity of these concepts.

E. SUMMARY

The role of the multitrait-multimethod matrix in assessing convergent and discriminant validity in our studies of child rearing has been described. Such an analysis places the constructs in an empirical context and takes us a long step away from arbitrary definition, or measurement by fiat.

Some excellent convergent validities were observed. However, in some instances, mother's and father's ratings converged where it was not required by a priori logic, and in other instances minimal convergence was observed where greater convergence was required. Alternative interpretations of these outcomes were discussed, and current efforts to expose these interpretations to new data were described.

Detailed discussion of the Parental Rejection scale has been provided and the competing view that these scores more nearly represent Child Rejectability has been considered. Finally, the important role of discriminant validity has been demonstrated in the analysis of this construct.

REFERENCES

1. CAMPBELL, D. T., & FISKE, D. W. Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychol. Bull.*, 1959, **56**, 81-105.
2. ERON, L. D., BANTA, T. J., WALDER, L. O., & LAULICHT, J. A comparison of data from mothers and fathers on child-rearing practices and their relationship to child aggression. *Child Devel.*, 1961, **32**, 457-472.
3. LEVIN, H., & SEARS, R. R. Identification with parents as a determinant of doll play aggression. *Child Devel.*, 1956, **27**, 135-153.
4. SEARS, R. R., MACCOBY, E. E., & LEVIN, H. *Patterns of Child-Rearing*. Evanston, Ill.: Row, Peterson, 1957.
5. TORGERSON, W. S. *Theory and Methods of Scaling*. New York: Wiley, 1958.

Department of Psychology
The University of Wisconsin
Madison 6, Wisconsin

RELIGION AS A RESPONSE TO THE SEARCH FOR MEANING: ITS RELATION TO SKEPTICISM AND CREATIVITY*¹

Andover Newton Theological School

WALTER HOUSTON CLARK

When we turn to the problem of motivation as it relates to religion, we are immediately confronted with the question: what kind of religion? One of the besetting weaknesses of the psychology of religion as it sets out to be a science is that a kind of anarchy reigns with respect to the definition of religion. Each man has his own, and while all may use the term "religion," few are aware of the fact that only in a very vague sense may two psychologists discussing the subject be referring to the same psychological behavior. Recently I sent a questionnaire to social scientists studying religion asking them for their definition of it. Of the 68 replies no two were exactly alike, though they could be roughly classified into six groups (5). Some emphasized the supernatural, others values, still others institutions and creeds, others theology, and so on.

Indeed, it is not only the social scientists who have trouble in coming to an agreement, but differing types of religious personalities have difficulty in understanding one another. For example, both the theologian and the mystic are looked on as expressing some of the essential characteristics of the religious life. Yet they may have the greatest of difficulty in coming to an agreement about what is the essence of the religious life. To the mystic the theologian seems to glare with a cold eye, and the "queen of the sciences" seems to him a mere babbling, as words are piled upon words upon words. The theologian returns the scorn. Unless he happens to be a mystic as well as a theologian, his precise and speculative mind looks upon the mystic as a confused sentimentalist whose poetical, symbolic flights simply conceal an inability to think. It is obvious that the two speak from very different psychological experiences. The one is rational and logical. The other is poetic; yet both are looked on as religious and each in his own way is essential to the total religious enterprise.

This confusion of tongues, if it says anything to us, at the very least

* Received in the Editorial Office on August 8, 1961.

¹ Presented as part of the Symposium on Religious Psychology, International Congress of Psychology, University of Bonn, Germany, August 4, 1960.

suggests that what is named *religion* is an exceedingly complex function. Indeed if it is, as it seems to me, at its best, man's highest function, then this is only what we might expect. Obviously, if religion is so diverse, we can expect its motivation to be almost equally so.

But perhaps, first, I should indicate what I think of as religion so that, whether you agree with me or not, you will know what type of behavior I have in mind. In general I think of religion as, most characteristically, *the inner experience of the individual as he apprehends a Beyond, especially as he strives to harmonize his life with the Beyond*. This indicates both an inner and an outer aspect in religious behavior. Now, as a psychologist, I regret the inner aspect, for it is so hard to formulate an "operational" description of it. But I wish to acknowledge that what seems to the religious person as the essential activity—as is the case with the mystic in particular—is an inner activity to which anything he may say or do seems to him to constitute only the feeblest testimony. On the other hand, what we study is what he says or does about this inner activity, and so the latter part of my definition is designed with the special needs of the social scientist in mind as he addresses himself to the arduous task of studying religion. What we can observe, describe, and study as psychologists is what the religious individual says and does as he attempts to harmonize his life with the reality he apprehends in his inner being.

William James, in *The Varieties of Religious Experience*, says that not origins but results determine the worth of a man's religious life. This principle is a very sound one if we are concerned primarily with the *value* of religion. But the psychologist is interested in *understanding* religion. For this purpose he must look at the roots of religious experience as disclosed in motivation, and it is for this purpose, I take it, that we are concerned about motivation in our colloquium.

In my remarks I do not wish to deny the complexity of religious motivation. In a study made in the United States over two thousand people were asked *why they were religious* (2). To this, 65 different answers were given, which may be looked on as some measure of the complexity. However, I wish to concentrate on only one answer inasmuch as I believe that it indicates the most potent and creative single motivational source of the religious life. In this study, by C. S. Braden of Northwestern University, the motive most often mentioned was that "religion gives meaning to life." I believe that this is the most comprehensive and integrating motive as well as that of which the greatest number of people are conscious. Also, I believe that this is the most durable of all motives for a creature like man, who is capable

of reason and speculation and who knows that he must die. It is appropriate to note here that Paul Tillich in *The Courage to Be*, lists the anxiety of meaninglessness as the chief problem of the present age. If this be so he supplies me with philosophical support for my theory (7, ch. 2).

In Braden's study, furthermore, not only did "give meaning to life" head the list of 65 motives, but many others seemed either reducible to the first or very closely associated with it. For instance, "furnishes an aim and purpose for being," "explains the great beyond," and "fills a void," all may be saying in other words that religion gives meaning to life. Perhaps almost the same thing could be said of other answers such as "enriches life," "gives guidance," "rounds out life," and "gives something to look forward to." It would seem then that at least *this* empirical study supports the hypothesis that the most prevalent source of motivation for religion among thinking people is that it gives meaning to life.

Furthermore, if I am correct in this hypothesis we can go on to another already suggested; i.e., if religion best answers the question *what is the meaning of life?* it will be the most durable source of motivation for the living of life. In other words, we would expect the search for the Beyond and the attempt to harmonize one's life with it to be a comprehensive enterprise that would more often carry its motivation over to other areas of life than vice versa. A piece of research that gives some support to this view (although its implications are not nearly so clear and require some speculative interpretation), is a study I made a few years ago among well educated Americans (4). This was a study of the interaction of skepticism and religious belief and was chiefly a study of motivation. Among the 301 respondents to a questionnaire there was a disposition to consider the influence of religion on secular achievements greater than the influence of secular achievements on religion. This suggests that the motivating force of religion is more widespread, stronger, and probably more basic when it exists than the influence of secular motivation. Since this greater influence could well result from the fact that religion was conceived to give meaning to life, this study would at least fit in with our hypothesis. To repeat, since religion best answers the question *what is the meaning of life?* religion is the most durable source of motivation for the living of life. However, we cannot go so far as to say that the study definitely proves the hypothesis.

Now let us look at the problem from another angle and ask how religion compares with other factors as a source of motivation. The study I have just cited suggests that religion may be a source of more intense and more durable as well as *possibly* more creative motivation than other sources. That

which transformed and guided the subsequent life of Blaise Pascal, for example, was his few hours of mystical frenzy. So important was this experience to him and apparently so despairing was he of describing the deep feelings to others that he wrote them down and sewed the paper up in his coat as a mute reminder to himself of that which, more than all the logical and precise workings of his fine mind, gave meaning to his life. "A deeply moving religious experience," says Gordon W. Allport, "is not readily forgotten, but is likely to remain as a focus of thought and desire" (1, p. 266). That religion appears to be a more stable value than several others has some empirical support. In a study of the values of students in an American college, based on Eduard Spranger's value system, P. L. Whitely found least change over the four years in the religious and aesthetic field (9, 10).

"Why should religion be superior to other sources of motivation," we may ask. We can compare it with other very widespread and intense forms of motivation such as the desire for power and the drive for money. These are both notorious for their vulnerability to the vicissitudes of frustration and to too prolonged examination, particularly at the end of the individual's life. They do not stand inspection. Shakespeare's Macbeth laments, when he knows that the battle is going against him and his ambitious seizure of power is about to be frustrated:

I have lived long enough: my way of life
Is fall'n into the sear, the yellow leaf,
And that which should accompany old age,
As honour, love, obedience, troops of friends,
I must not look to have . . .
. . . Out, out brief candle,
Life's but a walking shadow . . .
. . . It is a tale
Told by an idiot, full of sound and fury
Signifying nothing.

Macbeth would have had a very different experience, if, instead of serving the power value, he had steadfastly sought for God as the result of an experience comparable in nature to that of Pascal. Obviously I am not speaking here of that self-seeking type of religious motivation that conceives of God as a spiritual nursemaid to satisfy each desire as it rises. Also, obviously, I am oversimplifying the situation in order to make myself clear. Most of our behavior derives from a complex of motives, and only a relatively few people demonstrate the single-minded devotion to God of which I have been speaking.

When we turn to the role of religious motivation in creativity, we find that

there are no empirical studies—at least of which I am aware—that clearly prove that the religious motive is a source of creativity superior to others. Almost any motive will lead in one way or another to its own peculiar type of creativity. But several studies are suggestive. An American geographer at Indiana University, S. S. Visser, over a generation ago, in a large scale investigation, demonstrated that persons listed in *Who's Who in America* came from minister's families about twice as often as they did from the homes of professional men in general (8). A second study at Yale and Harvard Universities showed that by another criterion of eminence, missionaries and sons of missionaries led the list (6). If these studies do not prove the superiority of religious motivation in stimulating achievement of the kind valued by society, they at least indicate its importance. Findings of this type should be followed up for the light they throw on the problem of creativity.

However, as we look at the great religious figures of history we find in them a fertility of personality mingled with passion, vigor, force, and a kind of paradoxical single-mindedness that seems to display human nature at its creative best. In the Judeo-Christian tradition Isaiah, Jeremiah, Jesus, St. Francis, the poets Milton and Dante, Martin Luther, George Fox, Teresa of Avila, and Dostoevsky are examples of these creative and productive spirits. The world of today is in need of a creative statesman whose motives are rooted in religion, as in the case of the Hindu, Mahatma Gandhi. Indeed, probably our only hope of a safe and just world lies in the application of the principle of nonviolent change, the modern seeds of which were sown by this saintly Indian leader, in his turn influenced by Jesus of Nazareth, the Russian Tolstoi, and the American Thoreau. While we may not be able to see in detail just how religion may influence politics, we know that motives of power, greed, and fear will never breed anything but danger and eventual destruction. It will be only as, in some form, the religious motive works its creative way into the center of world politics that a reliable peace will be possible.

But, in speaking of the durability and strength of the religious motive, I was oversimplifying. Yet, the degree to which this motive is single tends to impart strength to it; the degree with which it is intermingled with other motives tends to give it richness. These may, on the one hand, tend to weaken and destroy it, but on the other, in a more fortunate combination, they may actually enhance its creative function.

Let us illustrate the point by reference to a motive often associated with religion yet seems the very reverse of it, namely, the questioning spirit, which

may actually become the skeptical motive, the tendency to doubt. This may save the religious motive from itself when it tends to become narrow and therefore too intense, and, as a matter of fact, we often find the skeptical motive intertwined with the religious motive in many of the great creative works of man. Certainly it runs through the prophecies of Jeremiah, and it supplies a main thread in the *Book of Job*. It seems quite likely that it influenced the torrent of the genius of Leonardo, while it is prominent in the greatest religious poem in English literature, *Paradise Lost*. It is clearly at work in Dostoevsky in that great chapter "The Grand Inquisitor" of *The Brothers Karamazov* in which he criticizes the institutional expression of religion. We cannot say that skepticism *always* performs a creative function, but at its best it is an expression of that search for truth that seeks to examine any particular formulation of truth with the aim of refining it and going beyond it. We are quite used to it as a part of the scientific spirit. However, its reception has not been so cordial in the religious sphere, where special formulations of dogma, creed, or the prescription of religious behavior has been thought to be essential to the maintenance of a particular religious organization or way of life. But even here history shows us that skepticism in some degree is essential if there is to be that growth so necessary to religious vitality and creativity.

That the creative influence of religion overflows the bounds of what more narrowly may be accepted as the religious life, this "apprehension of a Beyond" of which I have spoken, is suggested by the study of achievement among minister's children by Visser to which I have already alluded. The achievements for which most of these eminent people were listed were by and large not specifically religious. Nevertheless there apparently was something of value that was carried over from the pastor's family more often than among the families of other professional people. Obviously we cannot categorically say that this was the religious motive, nor even that it was anything closely associated with religion, without much more precise studies. However, in that a high proportion of these eminent people came from minister's families, we may be entitled at least to suspect very strongly the operation of the religious motive in some form. To the extent that the achievements of these same people were in a nonreligious field, we may suspect that motives of a skeptical or at least a distracting variety may have been in operation also.

As I have tried to understand the interaction of these two motives, one religious and the other nonreligious (faith and skepticism), the explanation has seemed something like this: A vital religious experience is always in some

sense a creative act with creative consequences. But a too intense focus on the experience and the attempt by artificial means—often institutionalized—to keep it alive and at the same time confined, will indeed result in a kind of intensity and tension which may supply a motive of great strength. However, this will tend to become increasingly ingrown and therefore less creative, partly because the situation requires a great deal of unconscious reaction formation and defensiveness. It is out of such a matrix that the bigot and fanatic may be born. But at least the situation that increases tension also creates energy potential.

To use a figure of speech, we may think of the religious motive with its accompanying religious experience as a rushing river producing light, flashing waterfalls, glittering lively spouts of foam, a delight to the eye and the soul. But then the dams of creed and dogma are built to confine this splendor within narrow banks. The stream is deepened and the water pressure rises as the lively river subsides into a stagnant lake and the waters pile up and recoil upon themselves. Temporarily the creative display of the rushing waters is checked, and an ugly green crust forms on its surface. But a hidden potential lies in the depth of the confined waters.

If we liken this confined pressure to the motivating tensions of a narrow religious attitude, then the function of skepticism becomes that of opening the dam. This releases the pressure, thus permitting the river, on the one hand, to do useful work that under former conditions without the dam would have been impossible, or, on the other hand, loosening the river for a display that may be more spectacular than any of its sallies above the lake.

But the farther the loosened river descends, the lower becomes its pressure. Its bed broadens out. At the same time its power to do useful work has departed from it; its spectacular liveliness lies behind it. In much the same way, the farther away from a vital religious encounter a person gets, the less vigorous the motivation. At the same time, the skeptical motive, which may have started as the pure search for truth, tends to degenerate first into an easy toleration and finally into a broad acceptance of any views at all, which may end in indifference. The creative tension between an active skepticism and a vital religious faith has gradually been lost. Life has become more peaceful but also more sterile.

It would seem that this conflict of motive between faith and skepticism might help to explain in part some of the great cultural periods of history. Certainly the Renaissance was a period when new knowledge acted on the old faith in such a way as to present many believers with the challenge of skepticism. The period of cultural flowering centered at New England in

America over a hundred years ago also seems to illustrate this hypothesis. The background religious faith of the area was the rather narrow religious belief of strict Puritanism. Many individuals were concerned to maintain very restricted concepts of both dogma and conduct. But an inflow of ideas from Europe and other influences led to a questioning of the old ways, followed shortly after by the most creative cultural flowering, particularly in literature, that the United States has produced. Clear evidences of the conflict of faith and skepticism may be found in three of the period's finest writers: Nathaniel Hawthorne, Herman Melville, and Ralph Waldo Emerson. But as time went on and religious thinking became more liberal, it also became less intense. Faith became an easy assent, while skepticism, from being a strong protest, descended into a tolerance of all ideas simply because men had ceased being strongly dedicated to any one. New Englanders became more noted for their ability to preserve their social respectability and to hang on to their money.

Today Boston, though still regarded as a cultural center, has no pre-eminence over other American cities, while modern influential American writers are more apt to come from the Middle West and South, significantly known as the "Bible Belt." The chief cultural ornament of modern Greater Boston still preeminent is Harvard University; which, it may be noted, has ceased to recruit its professors from the New England intelligentsia and its students principally from exclusive New England preparatory schools. Now it attempts to secure the best not only from the nation as a whole but also from abroad as well. When we look back at the New England that existed a hundred years ago, we are tempted to exclaim "Ichabod! Its glory has departed!" Such is the penalty of the unbalance of skepticism over faith.

I could mention other cultural eras whose rise and fall are associated with the conflict between the religious and the skeptical motive, and doubtless many of you can think of others with which I am unacquainted. The pattern, of course, never quite repeats itself, and our theory at best explains only a part of the structure.

The research that I attempted and have already referred to (4) only in part supported the hypothesis that a more eminent group would show both a stronger religious motive and a greater tendency to be skeptical than a comparable less eminent group. Only half of the hypothesis received support of statistical significance, for the more eminent group did rate themselves as having a greater disposition to question religious beliefs. I am inclined to think that I made the mistake of not confining the study to those who showed eminence along the lines of literature and thought, where self-consciousness

would sharpen self-awareness and where the hypothesis could be brought into clearer focus.

Perhaps a variant of this theory may be demonstrated by a look at converts from one religious body to another. Conversion of this type always requires the operation of skepticism in some form at some stage of the process—at least if the conversion is a genuine one and not for ulterior purposes—for the convert must call in question his old faith before he turns to the new. It is well known that among the most zealous and creative of all believers are the converts; perhaps Paul of Tarsus and Augustine of Hippo are among the most famous examples in the Christian tradition.

I recently made a study of Catholic writers as a test of this observation. The sample consisted of the 91 writers born since 1500 A.D. represented in an American anthology entitled *The World's Great Catholic Literature*, edited by George N. Shuster. Of these 91, adequate biographical material was readily available for 30. It was presumed that these 30 represented a more eminent group, for otherwise the information about them would not have been so accessible. Of these 30, 20, or two-thirds of the sample, were converts, while some measure of dissent from authoritative views was indicated for 11, or over one third of the group. While we must be cautious in rushing to the conclusion that dissent and skeptical conflict were a creative force in all cases, it would seem at least a likely surmise that tension between faith and skepticism, between authority and private judgment, constituted a force that helped to mediate creative products and achievements of a literary variety. Religious faith and loyalty constituted an energizing motive, while skepticism and dissent broadened horizons and released the motive for creative work in an enlarged area of truth (see 8, pp. 236-237 for a somewhat fuller account).

One of the problems of creativity is to break through the prison of the habitual, to break up the "cake of custom," that problems may be solved in a new way and men may receive a fresh vision. As the scientist strives for truth in his laboratory and the philosopher in his study, so religion may find new truth through the theologian, the mystic, and the prophet. Each one, when he is successful, discards a more conventional and habitual appreciation of the Beyond for a fresher, bolder insight.

This suggests the value of interfaith contact. Among us who are scholars, the value of the exchange of ideas is clear. It is good for us to have our presuppositions challenged by other scholars whose ideas threaten our thought forms so comfortable and entrenched through habit. This is the chief function of our present meeting, for example. In the same way religious exchange is

■

good, too. The ways and beliefs of another group of religious believers that challenges one's own constitutes a stimulus to that skepticism and questioning of one's beliefs that in the long run will keep them alive and creative. Visitors from Europe to the United States are sometimes amazed at the vigor and activity of the churches and synagogues in a country with no established religion or church. Well over half the population are active members of more than 400 considerable religious bodies. While one would hesitate to identify church membership with religion, in no small measure this activity is an indication of the strength of religious motivation and creativity, due largely to interdenominational contact and competition. Whether they recognize it or not, the Roman Catholic Church, the Protestant Churches, and the Jewish bodies all benefit from this situation. The vigor of the Roman Catholic church in North America where it has had competition can be compared with the relative weakness of the same church in South America. There it has had little Protestant competition and usually a favored political position. The heads of many South American states, for example, must profess the Catholic faith. Nevertheless the religious situation in many parts of South America has so deteriorated that Roman Catholic missionaries sent from the United States have not always been welcomed by their own church. It seems greater interfaith competition and contact in the past would have been a blessing in disguise to the church in South America.

It must be said, however, that the application of my words should be confined to interfaith contact which involves mutual understanding and respect. Religious competition often degenerates into argument, bigotry, and hard feelings that waste and dissipate the motivational energies that might be used in more constructive ways. The religious wars and controversies that followed the Reformation were an extreme example of the misdirection and perversion of religious drives.

On the other hand, creative tensions between religious bodies require that avenues of communication be kept open. This may, indeed, for any particular religious body, involve the risk of losing members to other groups. But this exchange of members may be an advantage to all.

It is through some such process that faith and skepticism *interact*. Obviously my theory rests on very restricted empirical formulations and requires much more extensive and precise testing. But such study is important for our understanding of religious motivation, the development of the religious life, and the very broad and significant problem of human creativity.

●

REFERENCES

1. ALLPORT, G. W. *Personality*. New York: Henry Holt, 1937.
2. BRADEN, C. S. Why people are religious: A Study in religious motivation. *J. Bible & Relig.*, 1947, **15**, 38-45.
3. CLARK, W. H. *The Psychology of Religion*. New York: Macmillan, 1958.
4. ———. A study of some of the factors leading to achievement and creativity, with special reference to religious skepticism and belief. *J. Soc. Psychol.*, 1955, **41**, 57-69.
5. ———. How do social scientists define religion? *J. Soc. Psychol.*, 1958, **47**, 143-147.
6. HUNTINGTON, E., & WHITNEY, L. F. *The Builders of America*. New York: Morrow, 1927.
7. TILlich, P. *The Courage To Be*. New Haven: Yale Univ. Press, 1952.
8. VISHER, S. S. A study of the type of place of birth and the occupation of subjects of sketches in *Who's Who in America*. *Amer. J. Sociol.*, 1925, **30**, 551-557.
9. WHITELEY, P. L. A study of the Allport-Vernon test for personal values. *J. Abn. & Soc. Psychol.*, 1933, **28**, 1-23.
10. ———. The constancy of personal value. *J. Abn. & Soc. Psychol.*, 1938, **33**, 405-408.

Andover Newton Theological School
Newton Centre 59, Massachusetts

THE JEWISH ANTI-SEMITES PERCEPTIONS OF FELLOW JEWS*^{1,2}

University of Michigan and Brooklyn College

NORMAN C. WEISSBERG AND HAROLD M. PROSHANSKY

A. INTRODUCTION

Although researchers and theorists have applied themselves assiduously to the study of prejudice and ethnic relations, some special problems within this area have been largely ignored. Significant in this respect is the phenomenon of intragroup prejudice and more specifically, the problem of Jewish anti-Semitism. Even a cursory review of the literature reveals a paucity of studies concerned with its nature in terms of its effects and development.

Lewin (7) conceives the Jewish anti-Semite as accepting and interiorizing the majority group's feelings toward and beliefs about the Jews. He sees this as a special case of the more general sociological fact that "... the members of the lower social strata tend to accept the fashions, values and ideals of the higher strata" (7, p. 226). Sarnoff (9, 10) pictures the anti-Semitic Jew as an individual who "... adopts the content of his anti-Semitism by taking it in along with other hostile attitudes and behaviors external to himself" (9, p. 10). Thus, both Lewin and Sarnoff suggest that the Jewish anti-Semite accepts and incorporates the negative stereotypes and feelings that the majority group holds toward the Jews. We would expect then that the anti-Semitic Jew would be sensitive to the "Jewishness" of other Jews to the extent that he perceives them in terms of the prevalent stereotypes held by members of the majority group. The present research focuses on this proposition.

Other investigators have been primarily concerned with the causal factors underlying the development of Jewish anti-Semitism. Thus, Sarnoff (9, 10) utilizes the psychoanalytic concept "identification with the aggressor" and Lewin (7) stresses social-psychological as opposed to psychodynamic princi-

* Received in the Editorial Office on August 16, 1961.

¹ Additional data analysis and the time to prepare this paper for publication was supported, in part, by a Predoctoral Fellowship awarded the senior author and a Special Research Fellowship awarded the junior author from the National Institute of Mental Health, United States Public Health Service.

² This paper is adapted from the senior author's thesis presented to the faculty of Brooklyn College in partial fulfillment of the requirements for the degree of Master of Arts.

ples and constructs in an attempt to explain the origin of the phenomenon. Along this same line, several writers (1, 8, 9, 10) have reported significant correlations between high anti-Semitic bias among Jewish subjects and high scores on the F-scale. The present study, however, focuses on the operation of Jewish anti-Semitism in everyday, real-life situations in which one Jew perceives and evaluates the behavior of another. It is hypothesized that the anti-Semitic Jew characterizes another Jewish person whom he meets for the first time in Jewish stereotype terms to a greater extent than the non-anti-Semitic Jew. An adequate test of this hypothesis required that the comparison between these two kinds of Jews be made under conditions involving variation in the ethnic identification of the perceived other, i.e., Jew *vs.* non-Jew, and in the type of traits for which judgments were obtained, i.e., stereotypes commonly associated with Jews *vs.* stereotypes not relevant to Jews. The following specific predictions were made: (a) for stereotypes relevant to Jews, anti-Semitic Jews tend to characterize another Jew in these terms to a greater extent than non-anti-Semitic Jews; (b) comparable groups making the same kind of judgments with respect to a person identified as non-Jewish do not show these differences; (c) for stereotypes not relevant to Jews, there are no differences between anti-Semitic and non-anti-Semitic Jews in their judgments in these respects of another Jew; (d) nor are there differences between these groups when these same judgments are made of a non-Jew.

B. METHOD

1. Subjects

The subjects consisted of male and female Jewish students enrolled in two sections of the introductory psychology course given at Brooklyn College. Although the instruments and procedures to be described were applied to all of the students in the two sections, i.e., non-Jewish as well as Jewish, only the responses of the latter were employed in the analysis of the data.

2. Procedure

A modified form of Sarnoff's Jewish Anti-Semitism Scale (9, 10) was administered to the two classes by one of the investigators (HP). He was introduced by the regular course instructor as a member of the department who was cooperating with a colleague at another university in comparing the attitudes of Brooklyn College students on significant social issues with those of students at other colleges. In presenting the scale, the experimenter

emphasized the anonymity of the subject's responses as a basis for the latter responding in a frank and thoughtful fashion. Appended to the JAS scale was a personal data sheet which required the student to indicate his age, sex, religion, etc., but not his name.

To determine the reactions of our Jewish subjects to a Jewish and non-Jewish person who was observed for the first time, a procedure reported by Kelley (6) was adapted for the present study. Several class meetings after the administration of the JAS scale, the regular class instructor announced that he would be unable to teach that day and introduced the first of the two investigators to the class. The fact that a different *E* was involved in the two parts of the study served to keep them unrelated in the minds of the subjects. Following his introduction to the class, the *E* told the students that they were being involved in a research project designed to evaluate the quality of college teaching. He indicated that arrangements had been made for a substitute instructor to take over their class that day, and that following his lecture they would be asked to evaluate him in terms of personality and method of teaching. They were also told that the new instructor was one of a number of such special teachers who were not part of the regular teaching staff but whose sole function was to take over classes as part of the research program for evaluating college teaching. Finally, it was pointed out that in order to facilitate their evaluation of the new instructor, they would be presented with a brief written biographical sketch of him before he arrived to take over the class.

The treatment of the two classes was identical except for the information given in the biographical sketch of the new instructor. While both sketches provided exactly the same kind of background data and were identical with respect to age, marital status, training, etc., one clearly identified the new teacher as Jewish, whereas the other indicated a person of the Christian faith. Thus, the former was identified as a "Dr. Cohen" who is "an active participant in his synagogue's religious and social activities" and who is interested in "the maintenance of Jewish religious traditions"; the latter as "Dr. Ainsworth" who is "an active participant in his church's religious and social activities" and who is interested in "the maintenance of Christian religious traditions."

After the students read the biographical sketch, the *E* called the "substitute instructor" into the room and the latter promptly identified himself by writing the appropriate name on the blackboard, i.e., "Dr. Cohen" in one class and "Dr. Ainsworth" in the other, after which he proceeded to deliver a lecture to the students on a topic relevant to the course content. The

identical lecture was given in both classes by the same person who was a mature looking graduate student not known to any of the students. Inasmuch as the lecture had been rehearsed by him a number of times, his presentation to both classes in terms of both content and style was more or less the same. After he completed the lecture he left the room and the *E* then asked the students to give their impressions of the new instructor ("Dr. Cohen" or "Dr. Ainsworth") by judging him on a series of rating scales and by writing a brief personality sketch. Here again the students responded anonymously and it was stressed that their judgments of the new instructor would in no way affect his status. Upon completing their evaluations they once again filled out a brief personal data sheet which permitted the experimenters to match the subject's JAS score with his teacher evaluation data.

3. *Measuring Instruments*

Sarnoff's JAS Scale: This is a Likert-type questionnaire consisting of 44 items, only 25 of which constitute the JAS scale, i.e., designed to measure the Jewish individual's attitude toward his own ethnic group. The other items are also concerned substantively with Jews and Jewish life but were included in order to determine the relation of Jewish anti-Semitism to various other beliefs about Jews and Judaism (e.g., Zionism, chauvinism, etc.) and to counteract any tendencies toward response set in answering the 25 JAS items. In using the complete questionnaire, Sarnoff (9, 10) was able to administer it to student groups all of whom were Jewish. Because ongoing classes were employed in the present study involving both Jewish and non-Jewish students this procedure was not feasible. In order to overcome this problem and more significantly, in order to disguise the somewhat apparent intent of the instrument, the 19 nonscale items were eliminated and 25 questions dealing with other than the "Jewish issue," e.g., attitude toward birth control, communism, etc., were substituted in their place. These items were also set up in a manner which served to counteract any tendencies in the subject toward response set. In addition, the general instructions were prepared so that the non-Jewish students could omit those JAS scale questions which did not apply to them, i.e., those obviously intended for Jewish respondents.

4. *Measurement of Stereotypes*

Sixteen nine-point graphic rating scales were constructed for the purpose of testing the stated predictions. Half of them involved eight of the attributes

reported by Katz and Braly (5) and Gilbert (4) as most frequently assigned by college students in their characterizations of Jews: "clannish," "sly," "mercenary," "industrious," "shrewd," "ambitious," "grasping," and "aggressive."³ The other eight scales involved qualities more often associated with other ethnic groups: "slovenly," "treacherous," "suave," "progressive," "impulsive," "artistic," "quarrelsome" and "meditative." Each scale extended from the maximum of the attribute ("very clannish") to its absence in an individual ("not clannish at all") and was placed on a separate page. The order of presentation of the 16 scales to the subjects was haphazard. In making his rating the subject was instructed to encircle the appropriate scale value rather than marking the continuum at any point.

5. *Personality Sketch*

After having completed their judgments on the rating scales, the students were asked to write a free description of their impressions of the new instructor. Inasmuch as these impressions were regarded as a secondary source of data, they were obtained after the ratings were completed. As a consequence they reflected many of the students' previous scale judgments, and, in addition, many of them were quite fragmentary. Because of the reduced number of cases which resulted, the analysis of these data was quite inconclusive, and hence will not be considered in the subsequent discussion.

C. RESULTS

The responses of 146 Jewish subjects to the JAS scale were submitted to a graphic item count which revealed that while the instrument contains many items on which the subjects distribute themselves across the range of possible responses, it is, on the whole, a rather rough measure of Jewish anti-Semitism. For this reason only the data of those subjects who fell at the top and bottom quarters of the distribution were analyzed in the test of the hypotheses, i.e., a high anti-Semitism (HAS) and a low anti-Semitism (LAS) group. This procedure and the attenuation resulting from the fact that some subjects did not participate in both parts of the study reduced the final *N* to 57: 20 HAS and 12 LAS in the Jewish instructor class and 11 HAS and 14 LAS in the class with the non-Jewish instructor. It will be recalled that the subjects rated the instructor on eight stereotype traits (relevant to Jews) and on eight nonstereotype traits (not relevant to Jews). Thus, under each instructor condition the judgments made by HAS and LAS

³ The original Katz and Braly list included "Loyal to Family Ties." This was changed to "clannish" in the present study.

subjects were compared for each stereotype and each nonstereotype trait. The median test was employed to test the statistical reliability of these differences.

The prediction was made that HAS subjects would characterize another Jew in stereotype trait terms to a greater extent than LAS subjects. It was also predicted that where the perceived other was a non-Jew these differences would not occur; and in the case of nonstereotype traits, no differences between these groups would occur regardless of whether the instructor was a Jew or non-Jew. Considering the results obtained for each stereotype trait first, it was found that under the Jewish instructor condition, the HAS group rated him as more *clannish* ($p = < .025$) and more *industrious* ($p = < .05$) than did the LAS group; under the non-Jewish instructor condition, the former saw him as more *sly* ($p = .03$) than the latter. The chi-square values obtained for all the other stereotype traits under the two instructor conditions were not statistically significant.

For the nonstereotype traits it was found that when the perceived other was a Jewish instructor, the HAS subjects rated him as more *progressive* ($p = < .05$) than did the LAS subjects; when the instructor was non-Jewish the former saw him as being more *meditative* ($p = .03$) than did the latter. None of the other chi-square values for the nonstereotype traits under the two conditions was statistically significant.

Taken as a whole, the results obtained provide little support for our main hypothesis. It is true that HAS subjects saw the Jewish instructor as more clannish and industrious than did the non-anti-Semitic group and that these differences did not occur when the instructor was identified as non-Jewish. On the other hand, it is also true that the HAS individuals perceived the non-Jewish instructor in at least one instance in Jewish stereotype terms (*sly*); and in another instance they attributed more of a nonstereotype trait to the Jewish instructor (*progressive*), and in still another, more of such a trait to the non-Jewish instructor (*meditative*). Thus, for all five traits for which statistically reliable differences were found, HAS individuals tended to attribute more of the quality to the instructor regardless of his ethnic origin or the kind of trait involved. This same tendency did not occur with any consistency among the traits for which chance results were obtained, i.e., in almost half of these traits a greater proportion of LAS subjects fell above the combined median rating. Because of the equivocal nature of these findings, it seemed appropriate to derive an overall score for each of the two types of traits for each subject by summing his separate judgments. While this procedure precluded consideration of any specific trait, it was comparable to increasing the N of our observations and hence provided a more stable

measure of each subject's judgments. Median tests were applied to these overall scores in order to test the original predictions. The results obtained for the stereotype traits under the two instructor conditions are shown in Table 1.

TABLE 1
CHI-SQUARE AND PROBABILITY VALUES FOR THE SUMMED RATING SCORES
OF THE STEREOTYPE TRAITS

	Chi square	p^*
Jewish instructor ($N = 32$)	3.33	$< .05$
Non-Jewish instructor ($N = 25$)	0.96	$> .30$

* The p value for the Cohen class is for a one-tailed test; for the Ainsworth class the probability is based on a two-tailed test.

It can be seen in Table 1 that the HAS subjects tended to make higher total rating scores in judging the Jewish instructor on stereotype traits than did the LAS subjects. The obtained chi-square value is significant at less than the 5 per cent level.

TABLE 2
CHI-SQUARE AND PROBABILITY VALUES FOR THE SUMMED RATING SCORES
OF THE NONSTEREOTYPE TRAITS

	Chi square	p^*
Jewish instructor ($N = 32$)	.409	$> .50$
Non-Jewish instructor ($N = 25$)	.034	$< .90$

* The p values for both conditions are based on a two-tailed test.

The differences obtained for all other conditions as shown in Tables 1 and 2 are not statistically reliable. If the HAS subjects had tended to attribute more of a trait to the instructor regardless of the nature of the trait or his ethnic identity then we would have expected it to be reflected in his summated scores under all four conditions. It is evident from Tables 1 and 2 that this is not the case. Earlier we predicted that the HAS person would tend to perceive another Jew in stereotype trait terms to a greater extent than the LAS individual, and that these differences would not occur if the perceived other were not a Jew or if the traits were not stereotypes relevant to the Jewish minority. It would seem then, that as far as the total or summated ratings are concerned, our predictions are borne out by the data.

D. DISCUSSION

The view that anti-Semitic Jews perceive other Jews in the stereotype terms commonly associated with them by the majority group receives only equivocal support. The results derived for each stereotype and nonstereotype trait under the two instructor conditions are ambiguous to say the least; on the other hand, comparisons between HAS and LAS individuals based on their summation scores for the two types of traits, confirm the original predictions. A consideration of these findings, however, in relation to other relevant research, leads to a relatively clearer picture of their meaning.

As previously indicated, several investigators have reported significant correlations between authoritarianism and anti-Semitic bias among Jewish students. In addition, authoritarians have been found to stereotype more often and more consistently than nonauthoritarians (1, 11). Seen in these terms we would expect the anti-Semitic Jew to stereotype not only with respect to Jews and other minority groups, but even more generally, that is, in perceiving individuals identified in terms of any one of a number of social categories, e.g., women, bankers, teachers, etc. This, in turn, suggests that we consider the social context in which the subjects made their judgments.

In presenting the new instructor to the subjects a deliberate attempt was made to accentuate his religious or ethnic background by pointing up this social attribute in the biographical sketch. Yet, the fact remains that his primary role in the situation was that of a college teacher, this role being made even more salient by the facts that he was also described in the sketch as a "college teacher" and that he was being observed by the students for the first time. In their study of the perceptions of prejudiced individuals, DeFleur and Westie (3) concluded that such social characteristics as the role, class position, etc. of the relevant stimulus person may influence such perceptions as well as the attitudes of the perceiver.

It follows, then, the HAS individual's tendency to stereotype should be responsive not only to the ethnic designation of the stimulus person but also to his role as a teacher. The former is significant for him because of its relevance to his attitude, i.e., anti-Semitic, whereas the latter achieves importance because it defines his immediate relationship to the social context. All of this, in turn, suggests that in order to comprehend the judgments made by the HAS subjects on any single dimension, the *relevance* of this dimension to *both* social characteristics of the stimulus person must be considered. Stereotype traits are not applied only to Jews but to other social groups including the college teacher or "professor." It is our contention

that the stereotyping tendency of the HAS individuals can operate freely only where a particular trait is relevant to both the "Jewish" and "college teacher" characteristics of the stimulus person. Where the trait is relevant to only one of these characteristics, and either irrelevant to or incompatible with the traits usually associated with the other, the tendency to stereotype will be interfered with and the more extreme judgment expected in the light of the relevance of the trait to the first characteristic will not occur. Thus, the stereotype of Negroes as having inferior intelligence is more difficult to apply if the stimulus person is a Negro musician and still more difficult to apply if he is a Negro doctor. Now let us examine our results once again.

Of the eight stereotype traits judged under the Jewish instructor condition, only "industrious" and "clannish" distinguished between the HAS and LAS subjects in the predicted direction. Only these two traits, we would contend, were relevant to the stimulus person's role as a college teacher as well as a Jew, and therefore the stereotyping tendency of the HAS individual operated freely in his judgments of the instructor. We would not argue that both of these traits apply as well to the former as they do to the latter, but only that they have some significant degree of relevance to the common conceptions held of college teachers. The college teacher is often described as "impractical," "an ivory-tower intellectual," "bookish and introverted," "studious," "aloof," and so on. For the student, these conceptions and the clear-cut status differences between himself and the faculty often underlie his complaints that the latter are a serious-minded, humorless, unapproachable in-group. Clearly implied are notions of clannishness and industriousness. Both of these traits are by no means irrelevant to or inconsistent with the generally held view of the college teacher. On the other hand, the other six stereotype traits for which no differences were obtained—"mercenary," "ambitious," "grasping," etc.—are in some instances irrelevant to this view, e.g., "sly," and in others clearly inconsistent with it, e.g., "mercenary." Thus, the stereotype "mercenary" is consistent with both aspects of a stimulus person designated as a "Jewish businessman," but only partially consistent or inconsistent if he is identified as a "Jewish college teacher."

It was predicted initially that there would be no differences between HAS and LAS subjects in their judgments of the Jewish instructor on nonstereotype dimensions. It was found, however, that the HAS subjects perceived him as significantly more progressive (nonstereotype trait) than did the Jewish subjects low in anti-Semitic feeling. We would now argue that the trait "progressive" is relevant to both Jews and college teachers. The cognitive association of both of these groups with liberal political thinking and even

radical movements has emerged in recent years. This association is especially strong among students attending Brooklyn College inasmuch as it has a relatively high proportion of Jewish staff members and has been consistently identified as having a progressive or politically liberal faculty. Hence the trait "progressive" applied to a Jewish instructor did not involve any cognitive inconsistency and the stereotyping tendency of the HAS subject was free to operate.

Of the remaining seven nonstereotype traits only "mediative" bore any relevance to either of the two social characteristics, viz., to the role of college teacher. On the other hand it is not relevant to the general negative conception of Jews, e.g., "sly," etc., and thus, we would contend, its application to the stimulus person created some interference in the expression of the stereotyping tendency. The other six traits, e.g., artistic, slovenly, seave-quarrelsome, etc., were not relevant to either Jews or teachers and hence significant differences were not obtained.

Because of the HAS individual's anti-Semitic attitude, it might seem reasonable to assume that the ethnic designation of the experimental confederate under the non-Jewish instructor, i.e., "Christian," would not be a salient social characteristic in his perceptions of the latter. On the other hand the fact that he tends to reject his own ethnic identity and identifies with non-Jews, makes it more reasonable to assume that the designation of others as non-Jews has some degree of salience in his perception of them. Knowing that others are non-Jews is satisfying for the Jewish person who is threatened by his own group members. If we accept the latter assumption, then the line of reasoning given above applied equally well in explaining the results obtained under the non-Jewish instructor condition. Thus, it was found that HAS subjects perceived the instructor as significantly more meditative than the LAS subjects. Recognizing the former's tendency to stereotype and the applicability of the trait to both a college teacher and a religious Christian who teaches Sunday School and is concerned with the "maintenance of Christian religious traditions," this finding is in line with our explanatory approach. On the other hand, applying the trait "progressive" to a person with both these social characteristics clearly involves a cognitive conflict and as a result no significant difference was obtained. When we consider the Jewish stereotype traits as applied to the non-Jewish instructor, we find some difficulty with our interpretive scheme. No difference was found between the two subject groups for "clannish," which is as it should be in terms of our scheme. The trait is relevant to the college instructor identification but not to that broadly designated group, "religious Christians."

Furthermore, if the anti-Semitic Jew tends to perceive his own group in these terms, it is hardly likely that he would also apply it to the majority group with whom he identifies. We would expect, however, a perceptual difference for the trait "industrious" inasmuch as this trait is not relevant to the two social categories. No such difference was detected. Unlike "clannish," which has a clearly negative connotation, the fact that the HAS person perceives his own group as "industrious" doesn't mean that he could not apply it to the majority group as well inasmuch as its evaluative meaning could be positive or negative depending on the context or object.

The truly anomalous finding was that the HAS subjects perceived the non-Jewish instructor as significantly more *slly* than the IAS group. This trait clearly has no relevance to either of the two social attributes. Yet, this finding made some sense to us in terms of a problem we encountered with this college class after the study was undertaken. We learned during the course of the study that there had been open conflict between the students and their regular instructor over the failure of the latter to come through on promised demonstrations and films relevant to the subject matter of the course. Moreover, there was evidence that some of the students in this particular group were suspicious of the avowed purpose of the study. While speculative, it is conceivable that given these situational factors the *slly* dimension became especially significant in the HAS group's perceptions of any instructor who happened to take over the course. This possibility, coupled with the tendency of the HAS subjects to stereotype, serves to explain the difference between the two subject groups in their perceptions of the non-Jewish instructor.

Apart from the finding for "*slly*" all the other significant specific trait findings, e.g., *industrious*, *meditative*, *progressive*, and *clannish*, can be explained more or less by our interpretive scheme. It could be argued, however, that as a *group* the latter four traits all seem to reflect the college teaching role, whereas, except for "*clannish*," their applicability to Jews or non-Jews is much more tenuous. Even "*industrious*," despite its association with Jews, can have a positive or negative connotation depending on the object and its context, and hence in the teaching situation, it could be argued, the HAS subject stereotyped the stimulus person in this way because of his primary role as instructor. Similarly it could be said that "*meditative*" clearly fits into the role of college instructor, whereas its connection with the stimulus person as a "Christian" is highly tenuous. Yet, the findings obtained with the summated scores tend to vitiate these arguments. Let us assume that the teaching role was the only salient aspect for the students in the situation.

Then in the light of the fact that there were only four traits which were relevant to this role, two among the stereotype traits and two among the nonstereotype traits, we should have obtained significant differences between our two groups under all conditions (or perhaps no differences at all). The fact remains that this was not the case. A significant difference was obtained in the predicted direction only under the condition in which the Jewish instructor was being judged on relevant stereotype traits. We would argue that despite the fact that the stereotyping tendency of the HAS individual was being interfered with in the case of the six stereotype traits which were not relevant or compatible with the stimulus person's teaching role, this tendency was still influencing his perceptions and therefore his judgments. The Jewishness of the instructor was a significant aspect for the HAS person in the light of his relevant negative attitude and the importance of this attitude for him. In effect, we are suggesting that the stereotyping tendency grows stronger in the perception of very negatively valued (and probably very positively valued) groups than for groups where attitudes are less intense. Summating all the HAS subject's judgments on the stereotype traits under the Jewish instructor condition served to distinguish him from the LAS subject thus providing evidence of this tendency in all of his judgments.

E. SUMMARY

The hypothesis that anti-Semitic Jews tend to perceive other Jews in the stereotype terms employed by the majority group was tested in the present study. Jewish college students with high and low anti-Semitic feeling were compared in their judgments on Jewish stereotype and nonrelevant dimensions under Jewish and non-Jewish instructor conditions. It was predicted that significant differences in the expected direction would occur only when judgments were made of the Jewish instructor on the stereotype scales. Results obtained in the analysis of the judgments for each trait were equivocal, whereas the findings based on the use of summation scores for stereotype traits and for nonstereotype traits, i.e., summing the individual judgments for the two types of traits, confirmed the stated predictions. An attempt to reconcile the two sets of findings was made by assuming: (a) that the anti-Semitic Jew is an authoritarian personality and therefore has a general tendency to stereotype; (b) that this tendency operated in terms of perceiving the stimulus person as a college teacher as well as in terms of his ethnic background; and (c) that the degree to which the stereotyping tendency of the high anti-Semitic Jewish student influenced his perceptions depended on whether or not the particular trait in question was relevant to both of these salient social attributes of the stimulus person.

REFERENCES

1. ADELSON, J. A study of minority group authoritarianism. *J. Abn. & Soc. Psychol.*, 1953, **48**, 477-485.
2. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, R. N. *The Authoritarian Personality*. New York: Harper, 1950.
3. DEFLEUR, M., & WESTIE, F. The interpretation of interracial situations: An experiment in social perception. *Soc. Forces*, 1959, **38**, 17-23.
4. GILBERT, G. Stereotype persistence and change among college students. *J. Abn. & Soc. Psychol.*, 1951, **46**, 245-254.
5. KATZ, D., & BRALY, K. Verbal stereotypes and racial prejudice. In *Readings in Social Psychology* (2nd ed.), G. Swanson, T. Newcomb, & E. Hartley, Eds. New York: Holt, 1952.
6. KELLEY, H. H. The warm-cold variable in first impressions of persons. *J. Personal.*, 1950, **18**, 431-439.
7. LEWIN, K. Self-hatred among Jews. *Contemp. Jew. Rec.*, 1941, **4**, 219-232.
8. RADKE-YARROW, M., & LANDE, B. Personality correlates of differential reactions to minority group belonging. *J. Soc. Psychol.*, 1953, **44**, 82-101.
9. SARNOFF, I. Identification with the aggressor: Some personality correlates of anti-Semitism among Jews. Unpublished Doctoral dissertation, Univ. Michigan, 1951.
10. ———. Identification with the aggressor: Some personality correlates of anti-Semitism among Jews. *J. Personal.*, 1951, **20**, 199-218.
11. SIEGEL, S. Certain determinants and correlates of authoritarianism. *Genet. Psychol. Monog.*, 1954, **49**, 187-229.

Department of Psychology
The University of Michigan
Ann Arbor, Michigan

THE ROLE OF THE CRITIC IN MASS COMMUNICATIONS. II THE CRITIC SPEAKS*

Skidmore College, Saratoga Springs, New York

ROBERT S. ALBERT AND PETER WHITELAM

A. INTRODUCTION

In an earlier paper (2), the rôle of the critic was analyzed in terms of its function within the cultural exchange of values, ideas, and perspectives between artists and the culture-at-large. The point emphasized was that the critic's rôle, while highly social in import, is largely defined and enacted on a personal basis, there being few if any other rôles concerned in a direct, somewhat regulatory, manner with the critic's. Not only is the rôle of critic determined a good deal by what the individual rôle-player wishes, but the nature of its social influence is indirect, yet potentially a very important factor in the establishment and conservation of the social status quo as depicted in mass communications. In other papers (1, 3), discussion centered about what the nature of the effects of mass communications may be on the culture and within the young individual's behavior. It is suggested that the three papers are all of the same fabric.

The present paper presents the results of a survey of the opinions of literary, film, drama, radio-television, ballet, and fine-arts critics on some issues involved in their rôle definition and enactment.

B. PROCEDURE

A questionnaire of one open-end and 14 multiple-choice questions, pretested on mass media critics within the Boston area, was mailed (with a self-addressed envelope) to 90 leading critics in the above areas. Because of the small population from which to draw a sample, no attempt was made at random selection of critics. The two conditions structuring the sample were (a) having a geographical representation of the United States (although five of the 90 critics were English), and (b) reaching the most "prestigious" critics. Of the 90 questionnaires, 58 (64 per cent) were replied to and are included in this study. For a list of the critics and a further report of their replies see Whitelam (4).

* Received in the Editorial Office on August 17, 1961.

C. ANALYSIS AND DISCUSSION

There were no statistically significant differences among critics in the various fields regarding their perceived influence in forming public opinion. All agreed that the present-day critic is predominately moderately influential in forming public opinion concerning artistic mass communications (chi square = 248.4, $df = 9$, p -value = .01). This datum is interesting when compared with the critics' responses to the question of their influencing an artist's prestige. Here most agree that they can influence an artist's prestige (chi square = 36.36, $df = 6$, p -value = .01). In the earlier paper it was suggested that the critics' rôle was partially that of a mediator between artists and public, acting as a "broker" and mutual translator for both groups of the other's responses or lack of responsiveness. It is interesting to note that regardless of who is the individual artist, critics believe that they can influence his prestige somewhat. However, the exact nature of the critics' "influence" is not clear. We found that critics do not see themselves acting unqualifyingly but only to a *moderate* degree as a "conscience" for the producers of artistic material (chi square = 15.237, $df = 4$, p -value = .01). Insofar as the majority of responses are positive, the critics agreed to some extent that one of the primary functions of their rôle is that of judge-valuator of quality. As in the above instances, no differences appeared among the critics within various fields.

Responses to the question of establishing standards of "taste" are consistent with the other questions, i.e., almost all affirmative but greatly qualified. In general, the critics believe that they do establish standards, but not with complete abandon nor without regard to the individual critic's *own* prestige. So while it might not matter who the artist is that is influenced, it is a matter of some importance who the critic is that is doing the influencing—an interesting blend of responsibility and sense of adequacy.

Summing up: critics see themselves as being influential, but believe that this influence is not complete nor isolated from the influence of the artist's own prestige and, much less, that of the individual critic involved. This is important; it implies that the rôle of critic is perceived by the critics themselves as conditional, with some constraining factors, especially within themselves and in establishing their own canons of taste as standards.

This perceived conditionality of their rôle also appears in their qualified responses to the question of having any "real" contact with their hoped-for audience. Again the replies were affirmative but the contact was viewed as limited "to only a certain extent" (chi square = 26.214, $df = 6$, p -value =

.01). This datum, coupled with the above, seems to point out that critics, as far as mediating between and influencing both artists and target audiences, consider themselves generally effective and influential (more so, with artists).

As to the critics' credentials in order to perform the rôle, most critics (74 per cent) believed that it was "not necessary" for them to practice the art in that particular field (chi square = 15.175, $df = 3$, p -value = .01). Moreover, if a critic *should* practice this art, it had little positive value in so far as contributing to his prestige with his audience. Rather, the effect is negative, being more likely looked upon by the audience as only secondary to his criticism, or not considered at all (chi square = 9.05, $df = 1$, p -value = .01).

If there appears to the critics little to be gained through practicing the art they deal with, they are in some agreement (thank God) that a liberal arts education is "very advantageous" in their careers as preparation (chi square = 17.230, $df = 9$, p -value = .05). However, from their responses, the image of the person usually selected for the position of critic is neither a scholar nor an artist in the particular field, but usually a striking "personality" or one already working in the particular medium in which he becomes a critic, e.g., newspaper, radio, etc. (chi square = 19.512, $df = 6$, p -value = .05). Apparently this does not strike much terror in their hearts for, when asked what sort of person "should be selected as a regular critic," the critics themselves showed no statistically significant agreement although their choices did approximate the types of persons they felt *were* chosen for the critic's rôle.

D. SUMMARY AND CONCLUSIONS

Responses to a questionnaire sent out to 90 major critics within the fields of drama, films, radio-television, fine arts, and literary arts indicate critics have the following rôle perceptions:

1. Critics believe they are moderately effective in influencing public opinion concerning artistic mass communications, performing somewhat as a conscience for the producers rather than the audiences.

2. Critics also feel they influence an artist's prestige regardless of who the artist is, but more or less depending on who the critic is.

3. While a liberal arts education is believed helpful in preparing critics for their rôle, the type of person usually chosen is not a scholar nor an artist, but a "personality" or a person already working in the field; this, rather than being a disadvantage, appears to have some advantages for practicing the art one criticizes, but was believed more likely to have negative effects for the critic, or to be disregarded by his audience.

REFERENCES

1. ALBERT, R. S. The rôle of mass media and the effect of aggressive film content upon children's aggressive responses and identification choices. *Genet. Psychol. Monog.*, 1957, **85**, 221-285.
2. ———. The rôle of the critic in mass communications: I. A theoretical analysis. *J. Soc. Psychol.*, 1958, **48**, 265-274.
3. WHITE, D. M., & ALBERT, R. S. Hollywood's newspaper advertising. Stereotype of a nation's taste. In *Mass Culture: The Popular Arts in America*, B. Rosenberg & D. M. White, Eds. Glencoe, Ill.: Free Press, 1957.
4. WHITEHAM, P. T. A survey of critics' opinions about their rôle. Unpublished Master's thesis, Boston University, 1955.

Department of Psychology
Skidmore College
Saratoga Springs, New York

TEACHING DEMOCRATIC VALUES: A STUDY OF THE EFFECT OF PREJUDICE UPON LEARNING*

Department of Psychology, Purdue University

GERALD ENGEL AND HARRIET E. O'SHEA¹

A. INTRODUCTION

In an earlier article dealing with the responses of different groups to a news item, the authors suggested that the use of ambiguous statements by writers contributes to the existing biases of readers and leads to a strengthening of their prejudice. The need for greater clarity in writing was emphasized to avoid appealing to the readers' biases. It was assumed that material carefully presented would probably be comprehended more clearly (2).

The present study attempts to evaluate the reaction of people from varied backgrounds to a message carefully presented to teach democratic values with a minimum of ambiguity. A film was selected as the teaching medium because it involves two avenues of information: the eye and the ear. "An American Girl" produced by Dynamic Films, New York 22, New York, was chosen because its message had earned the praise of those engaged in teaching about the brotherhood of man. Edward Linzer, Director, Educational Services, National Association for Mental Health commended the film: "... for young people it spotlights the social pressure to conform. For adults . . . a forceful examination of their attitudes and behavior towards people of different backgrounds." Galen Weaver, Nelson Schlegel, Council for Christian Social Action, Congregational Christian Churches added: "The film . . . appeals to the inherent decency in people."

However, the authors, after discussing the reaction of (adult male) Jewish viewers attending a B'nai B'rith local Lodge meeting, wondered whether the film would arouse similar feelings in other religious groups. Several hypotheses were formulated concerning the viewer's role in assimilating a message:

Hypothesis 1: Individuals who feel threatened by prejudice and persons

* Received in the Editorial Office on August 23, 1961.

¹ We wish to acknowledge the aid of the Human Relations Research Fund for compilation of statistical data.

who feel no such threat, will agree that certain points intended to overcome this prejudice have been included or omitted in presentation.

Hypothesis II: Individuals who feel threatened by prejudice and persons who feel no such threat, will agree as to the adequacy of material being presented to overcome such prejudice.

Hypothesis III: Individuals who can closely identify with the main character in a plot and persons who cannot will similarly accept the position taken by the hero.

In order to test these hypotheses "An American Girl" was shown on two consecutive Sunday evenings before two different audiences of college students attending a midwestern university in the spring of 1960. One of the groups represented the Baptists, largest Protestant denomination in America, while the other group consisted of Jewish students.

B. SUBJECTS

Subjects consisted of two groups of college students participating in Sunday evening dinner programs held at their respective religious foundations. One group of 38 undergraduates were members of the Baptist Student Foundation. The other group consisted of 25 undergraduates of the B'nai B'rith Hillel Foundation.

C. PROCEDURE

The film "An American Girl," was presented without comment as the first part of a program. The following questionnaire was then used to collect the opinions of the viewers.

Seventeen statements are included in section I. Ten of these points are positive and in accordance with democratic ideals which stress accepting people as individuals, getting to know and respect the various religions and cultural groups in America, and learning about the contributions of members of these groups to America's development: items 1, 3, 5, 7, 8, 12, 13, 14, 16, and 17. Seven statements are in conflict with these democratic values and suggest that there are inferior races and religious groups in America whose members should remain apart from the total community: items 2, 4, 6, 9, 10, 11, and 15. Not all 17 positive statements are considered in the film. However, none of the seven negative points are affirmed in the film. Section II asks respondents to rate the total effectiveness of the film. Section III seeks to learn which items would be stressed by the respondent in producing a similar film.

The evening's program was billed in advance as a film and discussion of

"AN AMERICAN GIRL" QUESTIONNAIRE**I. The film, "An American Girl," illustrates:**

(Mark 1 the points made most clearly in the film.

Mark 2 the second most successfully portrayed.

Mark 3 the third or least successfully portrayed.

Mark 0 those that do not appear in the film at all.)

- _____ 1. Teach youth to honor their own group traditions and respect other traditions.
- _____ 2. Individuals should associate socially with their own kind
- _____ 3. Jews feel satisfaction and joy from participating in their religious and cultural activities.
- _____ 4. There are groups of people who are by nature unpleasant and inferior to others.
- _____ 5. An individual should not be snubbed because of his religion.
- _____ 6. Individuals who pose as members of a minority group have only themselves to blame if they are pushed out by their own kind.
- _____ 7. All groups contribute to America's greatness.
- _____ 8. The important thing about a human being is that he is human, with needs, impulses and feelings.
- _____ 9. Nazis correctly understood who were inferior people.
- _____ 10. It would be best for Jews not to mention their religion.
- _____ 11. The important thing to do is to fit in with what others want you to do.
- _____ 12. Study leads to an understanding of Jews' contribution to religion and culture.
- _____ 13. A democracy recognizes the genuine right of individuals to be different.
- _____ 14. Prejudice can develop into bitter cruelty to people.
- _____ 15. Minorities would be wise to accept prevailing customs limiting participation in some activities.
- _____ 16. A self respecting person stands up for his own ideas no matter what unpleasantness results.
- _____ 17. Sympathy and understanding for other people regardless of race or creed makes life more livable and worthwhile.

II. What do you think of the film "An American Girl"? (Check one)

/very bad / bad / fair / good / excellent/

III. If you were a producer making a film similar to "An American Girl," what would you emphasize?

(See items in I above and check appropriate number. Also, write in any different and additional items.)

- | | | | |
|----------|----------|-----------|-----------|
| 1. _____ | 5. _____ | 9. _____ | 13. _____ |
| 2. _____ | 6. _____ | 10. _____ | 14. _____ |
| 3. _____ | 7. _____ | 11. _____ | 15. _____ |
| 4. _____ | 8. _____ | 12. _____ | 16. _____ |
| | | | 17. _____ |

Others (instead of or in addition to the item above):

(use back of the sheet for more space)

a current social problem to be led by a member² of the University Sociology Department. "An American Girl" was shown without comment. Following the film the discussion leader arose and gave the following directions:

You have just seen the film, "An American Girl." We would like your comments. Please fill out the form you will now receive. Your unsigned comments will help the film producer.

The questionnaire was then distributed and collected by the discussion leader. The remainder of the evening was devoted to further probing into the attitudes of individuals concerning issues touched upon in the film.

D. FINDINGS

The frequency count of the responses by Baptist and Jewish students on each item of three sections of the questionnaire is presented in Table 1. The per cent of students making such responses is given in Table 2.

Table 3 shows the weighted means for the two groups based upon material presented in Table 1. The weighting procedure was for the purpose of making the responses easier to handle. Response 0 was made equal to 1, $3 = 2$, $2 = 3$, and $1 = 4$.

The extent to which the differences in choice of category "1" (points made most clearly) on the 17 items in Section I are statistically significant is presented in Table 4 (1). Seven of these statements show significant differences between the two groups at the five per cent level or better. Of these seven items, five stress democratic ideals and two emphasize antidemocratic views. (Only one difference out of 17 would be expected at the five per cent level by chance.)

When responses of both groups to the "0" category (points omitted) are compared (see Table 3), four significant differences at the five per cent level or better are observed. Of these, one stresses a democratic ideal and three emphasize antidemocratic views. (Again only one difference at the five per cent level would be expected in 17 comparisons.)

A difference between groups appears at the five per cent level in judging the excellence of the film. More of the Baptists call it excellent than do Jews (39.5 per cent and 12 per cent). While there is no statistically significant difference in the other ratings (good and fair, $p = .10$), there is a tendency for the Jews to rate the film good and some do label the film fair (Jews: good, 68 per cent; fair 20 per cent. Baptists: good, 44.8 per cent; fair, 5.3 per cent; bad, 10.5 per cent). The difference between four Baptists

² Dr. Dwight Culver.

TABLE 1
FREQUENCY COUNT OF ITEMS RESPONDED TO BY BAPTIST STUDENTS AND BY JEWISH STUDENTS
("An American Girl")

Section	Item	Baptist (N = 38)				Jewish (N = 25)				
		0	3	2	1	0	3	2	1	
I.	1	6	3	13	16	5	5	8	7	
	2	17	11	4	6	15	5	1	3	
	3	33	0	2	3	23	1	1	0	
	4	24	6	2	6	18	4	1	2	
	5	2	6	8	22	3	3	6	12	
	6	18	16	1	3	15	6	2	1	
	7	18	3	5	12	13	7	3	2	
	8	6	3	9	20	5	6	8	6	
	9	36	2	0	0	23	2	0	0	
	10	24	9	4	3	21	2	1	0	
	11	16	11	2	7	16	3	1	3	
	12	23	5	5	4	18	2	1	3	
	13	3	11	5	18	12	4	6	2	
	14	0	2	5	31	0	0	7	18	
	15	19	8	4	7	20	3	1	0	
	16	0	0	6	32	0	1	6	18	
	17	3	5	5	25	4	7	9	5	
II.	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
(weight)	very bad	bad	fair	good	excellent	very bad	bad	fair	good	excellent
	0	4	2	17	15	0	0	5	17	3
III.	Item	N	Item	N		Item	N	Item	N	
	1	23	10	0		1	16	10	2	
	2	3	11	1		2	1	11	0	
	3	1	12	12		3	3	12	7	
	4	2	13	19		4	0	13	13	
	5	25	14	21		5	13	14	16	
	6	2	15	1		6	1	15	1	
	7	20	16	31		7	13	16	12	
	8	21	17	24		8	10	17	11	
	9	0				9	0			

calling the film "bad" and no Jews doing so does not reach the five per cent level of significance ($\chi^2_y = 1.31$; $\chi^2_{.75} = 1.3$). There is, however, at least a suggestion here that the 10 per cent of the Baptists who felt the film was bad would be worth studying further to determine, if possible, what factors were operating to produce this judgment; whether they reacted against the whole film as distressing, whether they were highly prejudiced individuals, or for whatever reason it might be.

There is only one item, "16," where there is a significant difference, at the one per cent level, between Jews (48 per cent) and Baptists (81.6 per cent) concerning points that should be stressed in making a new film similar to

TABLE 2
PERCENTAGES OF ITEMS RESPONDED TO BY BAPTIST STUDENTS AND BY JEWISH STUDENTS
("An American Girl")

Section	Item	Baptist (N = 38)			N	Jewish (N = 25)			1	N
		0	3	1 2		0	3	2		
I.	1	15.8	7.9	42.1	38	20.0	20.0	32.0	28.0	25
	2	44.7	29.0	15.8	38	60.0	21.3	4.2	12.5	24
	3	86.8	0.0	7.9	38	92.0	4.0	4.0	0.0	25
	4	63.2	15.8	5.3	38	72.0	16.0	4.0	8.0	25
	5	5.3	15.8	21.1	38	12.5	12.5	25.0	50.0	24
	6	47.4	42.1	7.9	38	62.5	25.0	8.3	4.2	24
	7	47.4	7.9	31.6	38	52.0	28.0	12.0	8.0	25
	8	15.8	7.9	52.6	38	20.0	24.0	32.0	24.0	25
	9	94.7	5.3	0.0	38	92.0	8.0	0.0	0.0	25
	10	57.9	23.7	10.5	38	87.5	8.3	4.2	0.0	24
	11	44.4	30.6	5.6	36	69.6	13.0	4.4	13.0	23
	12	62.2	13.5	13.5	37	75.0	8.3	4.2	12.5	24
	13	8.1	29.7	48.7	37	50.0	16.7	25.0	8.3	24
	14	0.0	5.3	81.6	38	0.0	0.0	28.0	72.0	25
	15	50.0	21.1	18.4	38	83.3	12.5	4.2	0.0	24
	16	0.0	0.0	84.2	38	0.0	4.0	24.0	72.0	25
	17	7.9	13.2	65.8	38	16.0	28.0	36.0	20.0	25
II.	Very bad					Very bad				
	0.0					0.0				
III.	Bad	10.5	5.3	39.5	38	0.0	0.0	20.0	68.0	25
	%R						%R			
	60.5			0.0		1	64.0		10	8.0
	1			2.6		2	4.0		11	0.0
	2	7.9		31.6		3	12.0		12	28.0
	3	2.6		50.0		4	0.0		13	52.0
	4	5.3		55.3		5	52.0		14	64.0
	5	65.8		2.6		6	4.0		15	4.0
	6	5.3		81.6		7	52.0		16	48.0
	7	52.6		63.2		8	40.0		17	44.0
	8	55.3				9	0.0			
	9	0.0								

TABLE 3
TABLE OF MEANS OF WEIGHTED SCORES FOR THE TWO GROUPS
• ("An American Girl")

Section	Item	(Response: 0, 3, 2, 1 weighted 1, 2, 3, 4) Baptist Mean	Jewish Mean
	1	3.0	2.7
	2	2.0	1.7
	3	1.3	1.1
	4	1.7	1.5
	5	3.3	3.1
	6	1.7	1.5
	7	2.3	1.8
	8	3.1	2.6
	9	1.1	1.1
	10	1.7	1.2
	11	2.0	1.6
	12	1.7	1.5
	13	3.0	1.9
	14	3.8	3.7
	15	2.0	1.2
	16	3.9	3.7
	17	3.4	2.9
II.		4.1	3.9

"An American Girl." The Baptists believe overwhelmingly in stressing that "a self-respecting person stands up for his own ideas no matter what unpleasantness results."

The differences between Baptists and Jews are all but obliterated when the responses are combined into two groupings, 1 plus 2 *versus* 3 plus 0. While each comparison is in the same direction as before it is apparent that differences are thereby deemphasized; only one item, "13," out of 17 is significant (at the two per cent level). Considering the number of items involved this difference could have appeared by chance.

Hypothesis I, that individuals who feel threatened by prejudice and persons who feel no such threat will agree that certain points intended to overcome prejudice have been included or omitted in the presentation, is rejected. Individuals attending the Jewish Foundation who are more apt to feel threatened by anti-Semitism do express significant differences in outlook from that of the Baptists in noting that fewer points (both democratic and anti-democratic) are portrayed clearly in the film. These Jewish students also differ significantly from the Baptists in their belief that there are more important points omitted (democratic and antidemocratic).

Hypothesis II, that individuals who feel threatened by prejudice and persons who feel no such threat will agree as to the adequacy of material being

TABLE 4
COMPARISON OF BAPTIST STUDENTS ($N = 38$) AND JEWISH STUDENTS ($N = 25$)
("An American Girl")

Differences of percentages in choice of category "1" (weight = 4)				
Section	Item	t	p^*	
I.	1	1.1	—	
	2	.4	—	
	3	2.3	.05	
	4	.9	—	
	5	.6	—	
	6	.6	—	
	7	2.2	.05	
	8	2.3	.05	
	9	—	—	
	10	2.3	.05	
	11	.6	—	
	12	—	—	
	13	3.3	.01	
	14	.9	—	
	15	3.5	.001	
	16	1.1	—	
	17	3.6	.001	
Differences of percentages in choice of category "0" (weight = 1)				
Section	Item	SDp	t	p^*
I.	1	9.9	.4	—
	2	13.0	1.2	—
	3	8.1	—	—
	4	—	—	—
	5	7.1	—	—
	6	13.0	1.2	—
	7	—	—	—
	8	—	—	—
	9	—	—	—
	10	12.2	2.1	.05
	11	13.3	2.3	.05
	12	12.3	1.1	—
	13	11.2	3.8	—
	14	—	—	—
	15	12.6	2.6	—
	16	—	—	—
	17	7.7	1.2	—

* Because no directional hypothesis was formulated, the levels are for a two-tailed test.

If N 's are less than 100, compute SDp on the proportion of the two groups combined (1, p. 138):

$$SDp = \frac{pq}{N_1} + \frac{pq}{N_2} \quad t = \frac{p_1 - p_2}{SDp}$$

presented to overcome such prejudice, is rejected; significantly more of the Baptist students are inclined to view the film as excellent as contrasted to the Jewish students.

Hypothesis III, that individuals who can and persons who cannot closely

identify with the main character in a plot will similarly accept the position taken by the "hero," is rejected. In recommending what should go into a new film, there is a statistically significant difference between Jews and Baptists, at the one per cent level, concerning item 16. Baptists overwhelmingly agree with the heroine of "An American Girl" that "a self-respecting person stands up for his own ideas no matter what unpleasantness results."

E. DISCUSSION

The rejection of Hypothesis I appears to demonstrate that people see and hear selectively (as is shown in many other psychological experiments). Evidently individuals who feel threatened will perceive events differently from individuals who may be concerned about the same issues but do not feel personally threatened.

Though both the Jew as a member of the minority and the Baptist student as a member of the majority belong to groups committed to democratic ideals which emphasize the desirability of judging persons as individuals rather than as members of groups, still it is the minority member who apparently feels personally threatened whenever this position is challenged. This was made abundantly clear in the group discussion (after the questionnaire) as the leader drew from both audiences their attitude concerning issues of minority rights. The problem was far more theoretical to the Protestants, while many Jews considered this a real issue that they faced daily.

The comparison in choices of Category 1 shows a significant difference at the five per cent level or greater on seven items: 3, 7, 8, 10, 13, 15, and 17. In these seven instances the Baptist group considers the point made more clearly in the film than does the Jewish group. Yet of these seven items chosen as being clearly portrayed, two—10 and 15—are in sharp contrast to the American ideal. Is this because some members of the majority, not being personally involved in the issue, are not critically evaluating the material being presented, or do they believe in the American dream of the democratic ideal while maintaining that minorities should adapt themselves to reality and accept everyday situations? Do some Baptists feel the film suggests that the minority should compromise on some basic rights—10 and 15—whereas no Jew accepts this view?

May the responses to the film be a form of projection, in which more members of the majority can accept a position which would make minorities second class citizens, whereas, the minority group cannot readily accept this position, though aware of prejudice? Thus, in responding in the "0" category (Table 4), the minority seems to conclude more readily that while certain negative

items—10, 11, and 15—are assuredly not included in this *good* film (according to their rating), one positive item is also omitted (13): "A democracy recognizes the genuine right of individuals to be different").

Hypothesis II. The Baptist students view the film as excellent. The Jews consider it good. Might this indicate that the minority is more critical in areas where self-concern creates a feeling of insecurity? Are ordinary measures considered insufficient by the insecure, while the secure are less analytical, or might the results suggest that the Jew, drawing upon history, is more perceptive and sensitive concerning the whole area of minority-majority relationships? Would a human relations film rated "excellent" by the Jews be considered "heavy propaganda" by more secure neighbors, or would this rating of "excellent" be upheld as "superexcellent" by the majority? This study does not answer the question.

Hypothesis III. Different "heroes" are extolled before various American groups. Each group likes to feel its own closeness. This is a positive factor which commercial advertisers clearly recognize. The testimonial that is presented in the Negro press features the group's "heroes"—Jackie Robinson and Joe Louis—because advertisers feel the viewer will most nearly identify with such figures. Do national agencies that are trying to create greater acceptance of democratic feelings and actions bear this sufficiently in mind as new material is developed to help in overcoming prejudice?

The response to this film also suggests that the minority and the majority group member is affected differently by prejudice. It may not be as meaningful to raise the same issues with the minority as with the majority. A problem in social relations probably needs discussion from different angles. As an example, a minority group member might need to consider the problem of "touchiness" as a concomitant of prejudice, whereas a majority group member might need to consider the effects on all concerned of falsely assuming superiority.

The radical difference between the Baptist group and the Jewish group on advocating item 16 ("A self-respecting person stands up for his own views no matter what unpleasantness results") raises a question as to whether a majority group, the Baptist group, a religious foundation group, fails to realize, and does not empathically "feel," how dreadfully painful the experiences of a minority group (here the Jewish group) may be when vivid prejudice (hostility, rejection, dislike, opposition) is heaped upon an individual. Is it easy to be "courageous" when there is nothing special to be courageous about?

The evils of prejudice are a threat to everyone living in a democracy.

However, methods for overcoming the problem in various groups may differ. Agencies trying to create a belief in the democratic way of life have to meet the specific needs of various people. In the future, perhaps there should be fewer books and films dealing with the total problem of prejudice facing all citizens in a democracy, and more material designed specifically to help a particular group realize its potential for accepting others.

At the moment there is still a prevailing feeling that what is good for one is good for all. Literature and films are often presented with insufficient regard for the varied composition of the audience.

REFERENCES

1. DOWNIE, N. M., & HEATH, R. W. *Basic Statistical Methods*. New York: Harper, 1959.
2. ENGEL, G., O'SHEA, H. E., & MENDENHALL, J. "Projective" responses to a news article: A study in aspects of bias. *J. of Psychol.*, 1958, **46**, 309-317.

Department of Psychology
Purdue University
Lafayette, Indiana

BOOKS

Now that there is a special APA journal completely devoted to the publication of book reviews, it is no longer necessary that other journals emphasize such publication. It has always been our conviction that book reviews are a secondary order of publication unless they carry information that is as equally important as the book. However, the publication of book titles is a very important service and we shall continue to render that service.

In any given issue of this journal, we may continue to publish one or more book reviews, but we do not consider such publication a major function of this journal. In line with this policy, we can no longer pay for such manuscripts.

BOOKS RECENTLY PUBLISHED

- ALLINSMITH, W., & GOETHALS, G. W. *The Role of Schools in Mental Health*. New York: Basic Books, 1962. Pp. 337.
- ALTSCHUL, A. *Aids to Psychology for Nurses*. London: Bailliere, Tindall & Cox, 1962. Pp. 308.
- AMES, L. B., & ILG, F. L. *Mosaic Patterns of American Children*. New York: Harper, 1962. Pp. 297.
- ARTISS, K. L. *Milieu Therapy in Schizophrenia*. New York: Grune & Stratton, 1962. Pp. 169.
- BACK, K. W. *Slums, Projects, and People: Social Psychological Problems of Relocation in Puerto Rico*. Durham: Duke Univ. Press, 1962. Pp. 123.
- BAKER, G. W., & CHAPMAN, D. W., Eds. *Man and Society in Disaster*. New York: Basic Books, 1962. Pp. 442.
- BALL, J. C. *Social Deviancy and Adolescent Personality*. Lexington: Univ. Kentucky Press, 1962. Pp. 119.
- BARRY, R., & WOLF, B. *An Epitaph for Vocational Guidance: Myths, Actualities, Implications*. New York: Teachers College, Columbia Univ., 1962. Pp. 241.
- BAUGHMAN, E. E., & WELSH, G. S. *Personality: A Behavioral Science*. Englewood Cliffs, N.J.: Prentice-Hall, 1962. Pp. 566.
- BERKOWITZ, L. *Aggression*. New York: McGraw-Hill, 1962. Pp. 361.
- BERNDT, R. M. *Excess and Restraint*. Chicago: Univ. Chicago Press, 1962. Pp. 474.
- BIER, W. C., Ed. *Problems in Addiction: Alcohol and Drug Addiction*. New York: Fordham Univ. Press, 1962. Pp. 247.
- BRANDEN, N. *Who is Ayn Rand?* New York: Random House, 1962. Pp. 239.
- BREHM, J. W., & COHEN, A. R. *Explorations in Cognitive Dissonance*. New York: Wiley, 1962. Pp. 334.
- BRICKLIN, B., PIOTROWSKI, Z. A., & WAGNER, E. E. *The Hand Test: A New Projective Test with Special Reference to the Prediction of Overt Aggressive Behavior*. Springfield, Ill.: Thomas, 1962. Pp. 100.
- BROAD, C. D. *Lectures on Psychical Research*. New York: Humanities Press, 1962. Pp. 450.
- BROMBERG, W. *The Nature of Psychotherapy: A Critique of the Psychotherapeutic Transaction*. New York: Grune & Stratton, 1962. Pp. 108.
- BROWN, R., GALANTER, E., HESS, E. H., & MANDLER, T. *New Directions in Psychology*. New York: Holt, Rinehart & Winston, 1962. Pp. 353.
- BULL, N. *The Body and its Mind: An Introduction to Attitude Psychology*. New York: Las Americas Publishing Co., 1962. Pp. 99.

- BULLOUGH, G. *Mirror of Minds: Changing Psychological Beliefs in English Poetry*. Toronto: Univ. Toronto Press, 1962. Pp. 271.
- BURKE, K. *A Grammar of Motives and a Rhetoric of Motives*. New York: Meridian Books, 1962. Pp. 268.
- CANDLAND, D. K., & CAMPBELL, J. F. *Exploring Behavior: An Introduction to Psychology*. New York: Basic Books, 1961. Pp. 179.
- CHITT, V. A., ANDERSON, A. W., & HULLISH, H. G., Eds. *Negro Education in America: Its Adequacy Problems, and Needs*. New York: Harper, 1962. Pp. 319.
- COSER, R. L. *Life in the Ward*. East Lansing: Michigan State Univ. Press, 1962. Pp. 182.
- CROW, L. D., & CROW, A., Eds. *Readings in Guidance: Principles, Practices, Organization, Administration*. New York: McKay, 1962. Pp. 626.
- DAVIS, F. J., FOSTER, H. H., JR., JEFFERY, C. R., & DAVIS, E. E. *Society and the Law: New Meanings for an old Profession*. New York: Free Press of Glencoe, 1962. Pp. 488.
- DAVIS, K. *Human Relations at Work*. New York: McGraw-Hill, 1962. Pp. 642.
- DEUTSCH, J. A. *The Structural Basis of Behavior*. Chicago: Univ. Chicago Press, 1960. Pp. 186.
- DUFFY, E. *Activation and Behavior*. New York: Wiley, 1962. Pp. 384.
- DUVAUL, E. M. *Family Development: Second Edition*. Philadelphia: Lippincott, 1962. Pp. 512.
- ELLIS, A. *The American Sexual Tragedy: Rev. Ed.* New York: Stuart, 1962. Pp. 320.
- ERIKSEN, C. W., Ed. *Behavior and Awareness: A Symposium of Research and Interpretation*. Durham: Duke Univ. Press, 1962. Pp. 158.
- ESTABROOKS, G. H., Ed. *Hypnosis: Current Problems*. New York: Harper & Row, 1962. Pp. 285.
- FEIBLEMAN, J. K. *Biosocial Factors in Mental Illness*. Springfield, Ill.: Thomas, 1962. Pp. 111.
- FEIGL, H., & MAXWELL, G., Eds. *Scientific Explanation, Space, and Time*, Vol. III. Minneapolis: Univ. Minnesota Press, 1962. Pp. 628.
- FLEMING, C. M. *Adolescence: Its Social Psychology*. New York: Grove Press, 1962. Pp. 262.
- FRIEDMAN, L. J. *Virgin Wives: A Study of Unconsummated Marriages*. Springfield, Ill.: Thomas, 1962. Pp. 161.
- GENDLIN, E. T. *Experiencing and the Creation of Meaning: A Philosophical Approach to the Subjective*. New York: Free Press of Glencoe, 1962. Pp. 302.
- GERBERICH, J. R., GREEN, H. A., & JORGENSEN, A. N. *Measurement and Evaluation in the Modern School*. New York: McKay, 1962. Pp. 622.
- GLASER, R., Ed. *Training Research and Education*. Pittsburgh: Univ. Pittsburgh Press, 1962. Pp. 596.
- GLICK, I. O., & LEVY, S. J. *Living with Television*. Chicago: Aldine, 1962. Pp. 262.
- GLUECK, S., & GLUECK, E. *Family Environment and Delinquency*. Boston: Houghton Mifflin, 1962. Pp. 328.
- GOODY, J. *Death, Property and the Ancestors*. Stanford: Stanford Univ. Press, 1962. Pp. 452.
- GREEN, E. J. *The Learning Process and Programmed Instruction*. New York: Holt, Rinehart & Winston, 1962. Pp. 228.
- HAEFELE, J. W. *Creativity and Innovation*. New York: Reinhold, 1962. Pp. 306.
- HARE, A. P. *Handbook of Small Group Research*. New York: Free Press of Glencoe, 1962. Pp. 512.
- HARRISON, J. E. *Epilegomena to the Study of Greek Religion and Themis*. New Hyde Park, N.Y.: University Books, 1962. Pp. 600.
- HERBERT, W. L., & JARVIS, F. V. *Dealing with Delinquents*. New York: Emerson Books, 1962. Pp. 208.
- HIRT, M., Ed. *Rorschach Science*. New York: Free Press of Glencoe, 1962. Pp. 433.
- HUGHES, E. J., Ed. *Education in World Perspective: The International Conference on World Educational Problems*. New York: Harper & Row, 1962. Pp. 201.

- JOHNSON, W. L., & HARDIN, C. A. *Content and Dynamics of Home Visits of Public Health Nurses: Part I*. New York: American Nurses' Foundation, 1962. Pp. 146.
- KAYEN, W., & KUHLMAN, C., *Eds.* *Thought in the Young Child*. Lafayette, Ind.: Society for Research in Child Development, 1962. Pp. 178.
- KING, S. H. *Perception of Illness and Medical Practice*. New York: Russell Sage, 1962. Pp. 405.
- KIRK, S. A. *Educating Exceptional Children*. Boston: Houghton Mifflin, 1962. Pp. 414.
- KLOTZ, B., & DAVIDSON, H. H. *The Rorschach Technique: An Introductory Manual*. New York: Harcourt, Brace & World, 1962. Pp. 245.
- KLOPFER, P. H. *Behavioral Aspects of Ecology*. Englewood Cliffs, N.J.: Prentice Hall, 1962. Pp. 166.
- KRAKOWSKI, A. J., & SANTORA, D. A., *Eds.* *Child Psychiatry and the General Practitioner*. Springfield, Ill.: Thomas, 1962. Pp. 190.
- LANE, R. E. *Political Ideology*. New York: Free Press of Glencoe, 1962. Pp. 609.
- MCGOWAN, J. F., & SCHMIDT, L. D. *Counseling Readings in Theory and Practice*. New York: Holt, Rinehart & Winston, 1962. Pp. 623.
- MCMILLAN, Q. *Psychological Statistics: Third Edition*. New York: Wiley, 1962. Pp. 451.
- MADIGAN, M. E. *Psychology: Principles and Applications*. St. Louis: Mosby, 1962. Pp. 379.
- MARROW, A. J. *Changing Patterns of Prejudice*. Philadelphia: Chilton Books, 1962. Pp. 271.
- MARTIN, B. R. *Communicative Aids for the Adult Aphasic*. Springfield, Ill.: Thomas, 1962. Pp. 70.
- MEERLOO, J. A. M. *Suicide and Mass Suicide*. New York: Grune & Stratton, 1962. Pp. 153.
- MERENESS, D., & KARNOSH, L. J. *Essentials of Psychiatric Nursing*. St. Louis: Mosby, 1962. Pp. 312.
- MERLEAU-PONTY, M. *Phenomenology of Perception*. New York: Humanities Press, 1962. Pp. 466.
- MEYNARD, B. *The Nature of Ego: A Study*. New York: Philosophical Library, 1962. Pp. 211.
- MILLER, G. A. *Psychology*. New York: Harper & Row, 1962. Pp. 388.
- MUNN, N. L. *Introduction to Psychology*. Boston: Houghton Mifflin, 1962. Pp. 588.
- OSWALD, I. *Sleeping and Waking: Physiology and Psychology*. New York: American Elsevier, 1962. Pp. 232.
- PARKER, B. *My Language is Me*. New York: Basic Books, 1962. Pp. 397.
- PARNES, S. J., & HARDING, H. F., *Eds.* *A Source Book for Creative Thinking*. New York: Scribner's, 1962. Pp. 393.
- PFEIFFER, J. *The Thinking Machine*. Philadelphia: Lippincott, 1962. Pp. 242.
- POSTMAN, L., *Ed.* *Psychology in the Making*. New York: Knopf, 1962. Pp. 785.
- POSTON, R. W. *Democracy Speaks Many Tongues*. New York: Harper, 1962. Pp. 206.
- POWDERMAKER, H. *Copper Town*. New York: Harper, 1962. Pp. 391.
- QUEVADO, F. *The Scavenger*. New York: Las Americas, 1962. Pp. 146.
- RADO, S. *Psychoanalysis of Behavior*. New York: Grune & Stratton, 1962. Pp. 196.
- REIK, T. *Jewish Wit*. New York: Gamut Press, 1962. Pp. 246.
- RIESE, H. *Heal the Hurt Child*. Chicago: Univ. Chicago Press, 1962. Pp. 615.
- SALZMAN, L. *Developments in Psychoanalysis*. New York: Grune & Stratton, 1962. Pp. 302.
- SARNOFF, I. *Personality Dynamics and Development*. New York: Wiley, 1962. Pp. 572.
- SARTORI, G. *Democratic Theory*. Detroit: Wayne State Univ. Press, 1962. Pp. 497.
- SCHAEFER, K. E., *Ed.* *Environmental Effects on Consciousness*. New York: Macmillan, 1962. Pp. 146.
- SCHNEIDER, N. *Hypnotism and You*. New York: Exposition Press, 1962. Pp. 77.
- SHERIF, M., *Ed.* *Intergroup Relations and Leadership*. New York: Wiley, 1962. Pp. 284.

- SIEGEL, B. J., *Ed.* Biennial Review of Anthropology, 1961. Stanford: Stanford Univ Press, 1962. Pp. 338.
- SIEGEL, L. Industrial Psychology. Homewood, Ill.: Richard D. Irwin, 1962. Pp. 414.
- SIMMONS, J. R. The Quest for Ethics. New York: Philosophical Library, 1962. Pp. 54.
- SUDRE, R. Para-Psychology. New York: Grove Press, 1962. Pp. 412.
- TALLENT, N. Clinical Psychological Consultation. Englewood Cliffs, N.J.: Prentice-Hall, 1963. Pp. 298.
- WELLS, M. J. Brain and Behaviour in Cephalopods. Stanford: Stanford Univ. Press, 1962. Pp. 171.
- YABLONSKY, L. The Violent Gang. New York: Macmillan, 1962. Pp. 264.
- YATES, A. J. Frustration and Conflict. New York: Wiley, 1962. Pp. 236.

\$30.00 per year
\$15.00 per volume
Single Numbers \$7.50

BIMONTHLY
Three volumes per year

August, 1963
Volume 60, Second Half

Founded in 1929 by John Dewey and Carl Murchison

THE JOURNAL OF SOCIAL PSYCHOLOGY

If this space should be unstamped, this is the regular library edition. But if this space is stamped with a designating title, this is a special edition, sold

under the restrictions of a bilateral contract, and may not be resold for a period of five years from the date of publication.

AUGUST, 1963

(Manuscripts are printed in the order of final acceptance)

- Rorschach responses of normal Chinese adults: II. The popular responses . . . 175
BY KUO-SHU YANG, HUAN-YUAN TZUO, AND CHING-YI WU
- Race relations and class structures 187
BY WALTER B. SIMON
- A cross-cultural study of persons within the industrial belt of Calcutta . . . 195
BY BISWANATH ROY
- A cross-cultural study of the behavioral aspects of the concept of religion . . 203
BY ROY GLADSTONE AND G. C. GUPTA
- Mead's way out of the basic dilemma in modern existential thought . . . 213
BY ROLLIN CHAMBLISS
- Order of birth as a determinant of personality and attitudinal characteristics . 221
BY HERBERT GREENBERG, ROSEMARIE GUERINO, MARILYN LASHEN, DAVID
MAYER, AND DOROTHY PISKOWSKI

(OVER)

Copyright, 1963, by The Journal Press
Provincetown, Massachusetts, U. S. A.

Entered as second-class matter April 15, 1937, at the post-office at
Provincetown, Mass., under the Act of March 3, 1879

Second-class postage paid at Provincetown, Mass.

Social influences on judgments of descriptions of people	231
By ABRAHAM S. LUCHINS AND EDITH H. LUCHINS	
The distribution of successive interval judgments of attitude statements: A note	251
By WILLIAM W. RAMBO	
Preferences for abstract and representational art	255
By ROBERT H. KNAPP AND ALAN WULFF	
The foster-parent role	263
By GEORGE C. WILLISTON	
Focusing on the object of judgment in the social situation	273
By ABRAHAM S. LUCHINS AND EDITH H. LUCHINS	
Authoritarianism and student reaction to airplane hijacking	289
By CARL D. WILLIAMS	
Changes in parental attitudes as a function of anxiety and authoritarianism .	293
By EDWIN S. ZOLIK AND EUGENE WELSAND	
Trends in the occupations of celebrities: A study of newsmagazine profiles and television interviews	301
By CHARLES WINICK	
Change of attitudes as a function of some personality factors	311
By R. RATH AND S. K. MISRA	
Coalitions in three-person groups	319
By MARIE L. BORGATTA AND EDGAR F. BORGATTA	
Intelligence and delinquency: A reconsideration	327
By NORMAN M. PRENTICE AND FRANCIS J. KELLY	
Some aspects of opinions and personality	339
By WILLIAM J. MACKINNON AND RICHARD CENTERS	
Social character and conformity: A differential in susceptibility to social influence	343
By RICHARD CENTERS AND MIRIAM HOROWITZ	
BOOKS	351
BOOKS RECENTLY PUBLISHED	351

RORSCHACH RESPONSES OF NORMAL CHINESE ADULTS: II. THE POPULAR RESPONSES*¹

Department of Psychology, National Taiwan University, Republic of China

KUO-SHU YANG, HUAN-YUAN TZUO, AND CHING-YI WU

A. INTRODUCTION

As a part of the normative study on Rorschach responses of normal Chinese adults, this report is to present the identified popular responses (Ps) and the computed sample statistics relating to the variables of number and percentage of non-weighted and weighted Ps. And, besides, some intra- and cross-cultural comparisons will also be made. Chronologically, this is not the first report ever published dealing with the problem of identifying Rorschach Ps selected by Chinese adults. Professor Hwang (13) determined two lists of P responses based upon a sample of 80 respondents in 1955. His First List containing 16 Ps was derived from using Beck's (3) second criterion of selection and his Second List containing eleven Ps was obtained when both of Beck's criteria were applied. Nevertheless, his two lists can perhaps not be regarded as adequate due to the following two evident reasons: (a) As a sample, a size of 80 is too small to be a good representative of such a large population as the Chinese; and (b) the composition of his sample was unknown with respect to such important aspects as age, educational level, and occupation. The sample used by the present study is free from the aforementioned shortcomings of Professor Hwang's. Hence, the obtained results should be more satisfactory reference tools in scoring and interpreting the Rorschach responses of Chinese adults.

B. SAMPLE

The sample was composed of 347 normal Chinese adults. Here, the adjective Normal is used to describe those respondents who were never hospitalized for mental illness and who did not manifest any gross signs of it. All respondents were chosen from North Taiwan, and most of them were rural. The sources of sampling covered a wide range, including homes of respondents, fishing and mining huts, hospital wards, factories, shops, colleges, etc.

* Received in the Editorial Office on November 5, 1962, and given prior publication in accordance with our policy on cross-cultural research.

¹ Grateful acknowledgments are due to Professors Siao-sung Chang, Fa-yu Cheng, and In-mao Liu who read the manuscript and offered many valuable criticisms.

The sample was closely matched against the total population of Taiwan Province and Kinmen and Matsu, as described by the statistics of the Taiwan census for 1956 (21), in sex, age, educational level, and occupation. The composition of the sample and the success of matching were fully expounded and demonstrated, in terms of absolute and relative frequency distributions, with regard to the above cited factors, respectively, in a previous paper of the series by Yang, Su, Hsu, and Hwang (22).

C. CRITERION

Although, with the exceptions of Klopfer and his colleagues (15, 16) who selected Ps by the method of subjective judgment, the statistic of ratio or percentage was adopted by all of the other authors to develop their own lists of P, the size of ratio or percentage as a critical point was different for different authors. In the present investigation, Beck's (3) second criterion, i.e., the minimum percentage of fourteen, was adopted for the following reason: In comparison with Rorschach's (20) one-third, Hertz's (10, 11) and Guirdham's (7) one-sixth, and Piotrowski's (19) twenty-eight per cent, Beck's fourteen per cent is the lowest; the adoption of Beck's percentage, therefore, will be able to make the length of P list of the present research not too short, for the percentages of occurrence obtained in the sample were quite small.

D. RESULTS AND DISCUSSION

1. Normative Results

After the number of times specific areas were chosen for interpretation by our respondents has been tabulated for each blot and the limiting value of fourteen per cent applied to the percentage of occurrence of each response, then, a list of ten Ps as given in Table 1 is finally obtained. The Ps in that table are arranged according to the card order, and the relative strength of each can be known from its own percentage of occurrence and its rank order. In order to facilitate immediate understanding, we use general description, instead of the specific symbol system of blot location derived by any particular author(s) including ourselves, in the second column of Table 1.

To get some knowledge about the distribution characteristics of the numbers and percentages of non-weighted and weighted Ps, we have computed the sample statistics of mean (M), standard deviation (SD), first quartile (Q_1), median (Mdn), third quartile (Q_3), and mode (Mo), and the obtained results are summarized in Table 2.

The M , SD , Q_1 , Mdn , Q_3 , and Mo of the numbers of non-weighted Ps

TABLE 1
LIST OF POPULAR RESPONSES WITH A PERCENTAGE VALUE OF 14 PER CENT OR OVER
($N = 347$)

Card	Location	Content	Percentage of occurrence	Rank order	Suggested weight
I	Whole	Winged creature with body in center and wings at side (such as bat, butterfly, bird, moth, etc.)	69	3	4.5
IIa	Total or each half of black area	Four-legged animal(s)	22	5.5	1.5
IIb	Whole or each half of whole	Human figure(s)	16	8.5	1
III	Total or each half of black area with or without bottom center	Human figure(s)	39	4	3
IVa	Whole	Winged creature	22	5.5	1.5
IVb	Whole	Human figure, or animal of human form (such as ape, monkey, etc.)	15	10	1
V	Whole either up or down	Winged creature with body in center and wings at side	74	2	5
VI	Whole or lower two-thirds	Turtle	20	7	1.5
VIII	Side pink(s)	Four-legged animal(s)	33	1	5.5
X	Long deep green detail(s) of bottom green	Caterpillar(s) worm(s), or snake(s)	16	8.5	1

are 3.81, 1.74, 2.63, 3.78, 5.10, and 4.03, respectively. Owing to the fact that the numerical values of M and Mdn —3.81 and 3.78—are not greatly different from each other, the population distribution of the numbers of non-weighted Ps from which the sample distribution as graphed in Figure 1

TABLE 2
MEANS, STANDARD DEVIATIONS, FIRST QUANTILES, MEDIANS, THIRD QUANTILES, AND MODES OF THE NUMBERS AND PERCENTAGES OF NON-WEIGHTED AND WEIGHTED POPULARS ($N = 347$)

Variable	M	SD	Q_1	Mdn	Q_3	Mo
Number of non-weighted Ps	3.81	1.74	2.63	3.78	5.10	4.03
Percentage of non-weighted Ps	30	10	16	24	37	21
Number of weighted Ps	14.51	5.84	10.24	14.72	18.68	15.78

came should be normal. In order to test this hypothesis, a normal distribution is fitted to the observed sample distribution (Figure 1) and a χ^2 test of goodness of fit is practiced for the two distributions. The obtained χ^2 value is 2.09. From the table of χ^2 we find that for six degrees of freedom such a value will occur more than 90 per cent of the time when the null hypothesis is true. Thus, it is safe to conclude that the population from which our sample came has a normal distribution on the number of non-weighted Ps.

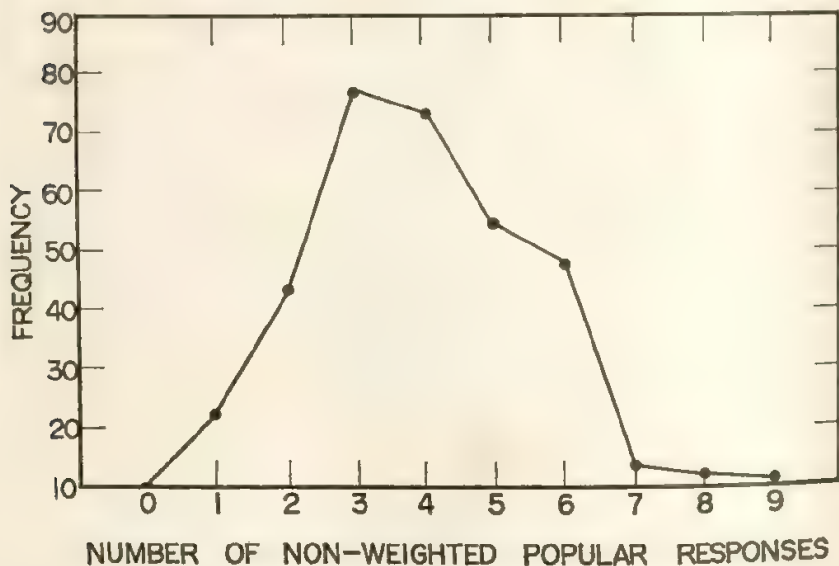


FIGURE 1

DISTRIBUTION OF THE NUMBERS OF NON-WEIGHTED POPULAR RESPONSES IN 347 NORMAL CHINESE ADULTS

Of the percentages of non-weighted Ps of which each is defined as the number of non-weighted Ps divided by the total number of all responses and multiplied by 100, the six sample statistics can be found in the second row of Table 2. We learn that, unlike that of number, the distribution of percentage seems non-normal, when judging either from the plain discrepancy between its M and Mdn or from its graphical representation as presented in Figure 2. This hypothesis of non-normality can directly be tested by computing the χ^2 statistic for the comparison of the observed sample distribution of percentage (Figure 2) with a fitted normal distribution. Since the observed χ^2 value of 220.96 is significant at the level of one per cent for two degrees

of freedom, we accept the hypothesis that the population has a non-normal distribution on the percentage of non-weighted Ps. In carrying out testing hypothesis, any attempt to deal with the percentage score of non-weighted Ps by making parametric statistical test should take this non-normality into consideration in advance.

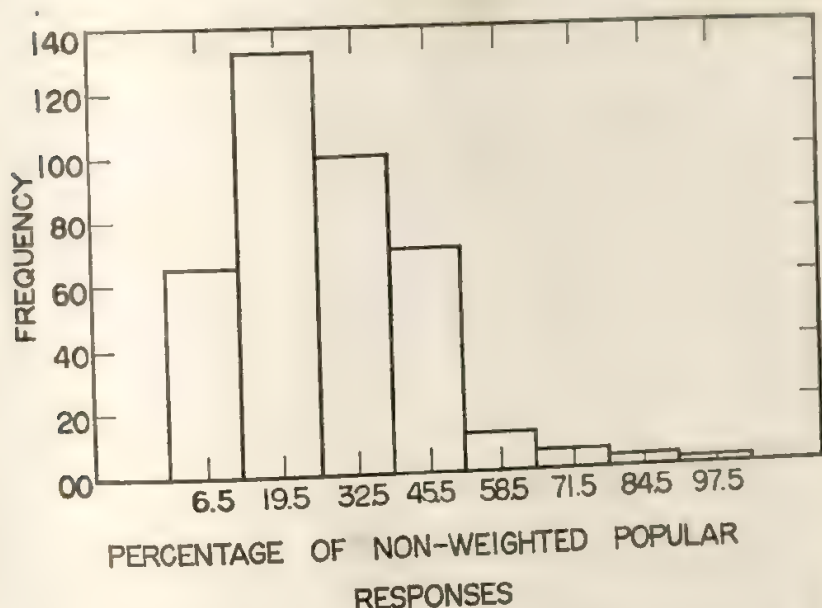


FIGURE 2
DISTRIBUTION OF THE PERCENTAGES OF NON-WEIGHTED POPULAR RESPONSES IN 347
NORMAL CHINESE ADULTS

According to Rorschach (20) himself, the Ps represent the share in the collective or common way of sensing or perceiving things, or, in other words, represent social conformity. As a direct indicator, the number of non-weighted Ps has traditionally been used by us to evaluate the total amount of social conformity of a respondent quantitatively. But it should be recognized that, when the number of Ps is counted for a particular respondent, an equal amount of social conformity is assumed for each P, without asking its size of occurrence percentage. This assumption of equalness is obviously in contradiction to fact. For, if we assume that the amount of social conformity can be expressed in terms of percentage of occurrence, the well-established empirical finding of different Ps being with different percentages of occur-

rence will enable us to admit the fact that different Ps represent significantly different amounts of social conformity. In order to remedy the above defect and to make the number of Ps a more adequate index of amount of social conformity, Piotrowski (19) offered us a weighting method by which we can give an allowance to the relative strength of each P. After applying his method to all of the percentages of occurrence in Table 1, we get a set of suggested weights which is presented in the last column of the same table. Now, a finer and more accurate ratio scale is attained and along this scale each unit, i.e., a point, is corresponding to an occurrence percentage of about 15. When the new scale is practically used, the number of weighted Ps of each respondent is the sum of all points assigned to the non-weighted Ps selected by that respondent. For the present sample of respondents, the six obtained sample statistics of the numbers of weighted Ps are listed in the third row of Table 2 and the distribution form is graphed in Figure 3. The χ^2 test is also applied in this place in order to test the tenability of normality of the distribution under consideration. The computed χ^2 value is 9.01 which is insignificant at the level of five per cent for four degrees of freedom. In

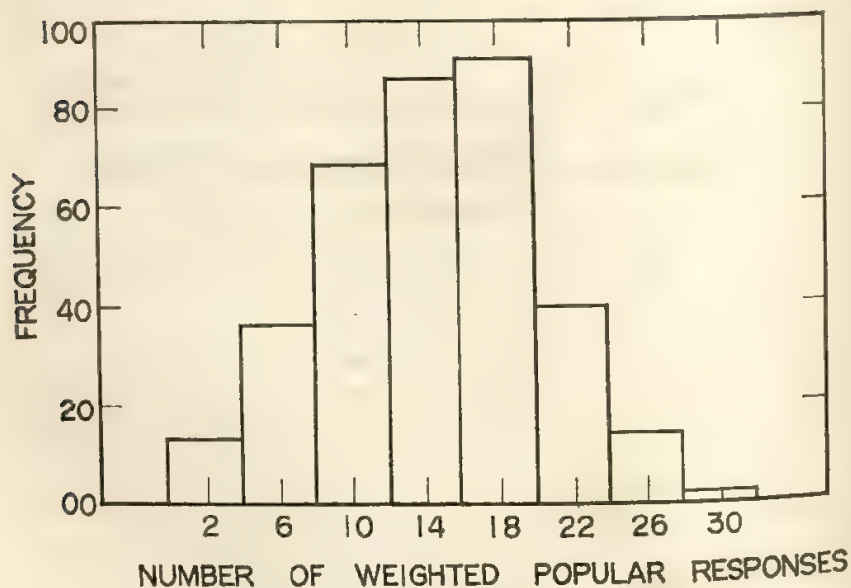


FIGURE 3

DISTRIBUTION OF THE NUMBERS OF WEIGHTED POPULAR RESPONSES IN 347 NORMAL CHINESE ADULTS

other words, so far as the variable of number of weighted Ps is concerned, our sample is drawn from an approximately normally distributed population.

2. *Intra- and Cross-Cultural Comparisons*

Having established the ten Ps most frequently seen in our sample, we are then capable of comparing intra-culturally our list with Hwang's First List (13) which, with the occurrence percentage of each P, is reproduced in Table 3. And, in order to make the comparison easier, the occurrence percentages of our ten Ps are also provided in the same table.

With regard to the difference between the two lists, the size of list is the most evident one: Hwang's First List contains sixteen qualified Ps, whereas ours contains only ten. Such a noticeable discrepancy can not be accounted for by the factor of chance. The composition difference between Hwang's and our samples might be one of the main contributing factors. It should be recalled that the character of our sample was predominantly rural and, on the other hand, through personal communication, we know that Hwang's sample was mainly composed of urban and semi-urban people. In China, the rural people with relatively lower educational level and socio-economic status consist largely of conservative peasants, fishermen, miners and rural housewives. They are more withdrawn, shy, inhibitive, and close-mouthed in comparison with the urban and semi-urban people. It probably is this personality difference which enabled the respondents in our sample to make fewer responses than those in Hwang's when confronted by a stranger with higher status in such a face-to-face social situation as in the Rorschach test, and in turn, this less responsiveness caused the occurrence percentages of some responses which qualified as Ps in Hwang's First List to fail to excel the given minimum percentage of fourteen and to qualify as a member of our list.

A close inspection of Table 3 will show that all of our Ps can be found in Hwang's First List with two exceptions, namely: Human Figure(s) to W or half of W in Card II and Human Figure or Animal of Human Form to W in Card IV. The eight common Ps which have greatest percentages of occurrence in our list are scattered in the upper part of Hwang's First List. And, when the occurrence percentages of these eight common Ps are carefully examined, one will discover that, after excluding all of the uncommon Ps in both lists, the rank order of each of the eight common Ps assigned in accordance with the relative size of its occurrence percentage is approximately the same in both lists. This means that the relative strength of each of the eight main Chinese Ps are quite stable and not easily subject to change of sample composition.

TABLE 3
COMPARISON BETWEEN THE P LIST OBTAINED IN THE PRESENT STUDY AND HWANG'S FIRST LIST

Card	Location	Content	In the present list		In Hwang's First List	
			Percentage of occurrence	Rank order of each of eight common Ps	Percentage of occurrence	Rank order of each of eight common Ps
VIII	Side pink(s)	Four-legged animal(s)	83	1	88.75	1
V	Whole	Winged creature	74	2	71.25	2
I	Whole	Winged creature	69	3	61.69	3
III	Total or each half of black area with or without bottom center	Human figure(s)	39	4	60.00	4
II	Total or each half of black area	Four-legged animal(s)	22	5.5	31.25	5
X	Inner yellow detail(s)	Four-legged animal(s)	—		31.25	
IV	Whole	Winged creature	22	5.5	23.75	6
VI	Whole or lower two-thirds	Turtle	20	7	22.50	7
X	Outer corner brown detail(s) at bottom	Four-legged animal(s)	—		20.00	
X	Light green top of bottom green	Rabbit's head	—		18.75	
X	Long deep green detail(s) of bottom green	Caterpillar(s), worm(s), or snake(s)	16	8	17.50	8
VII	Upper profile detail(s)	Human head(s)	—		17.50	
IX	Lateral green detail(s)	Human figure(s)	—		16.25	
X	Gray detail(s) between large pink mass and outer yellow	Fish(es) or lobster(s)	—		16.25	
IX	Section(s) of lower pink	Human head(s)	—		15.00	
X	Lateral blue detail(s)	Many-legged animal(s)	—		15.00	
II	Whole or each half of whole	Human figure(s)	16		—	
IV	Whole	Human figure, or animal of human form (such as ape, monkey, etc.)	15		—	

There are still other things which should be mentioned here. First, the failure of our two Ps—Card II W Human Figure(s) and Card IV W Human Figure or Animal of Human Form—being members of Hwang's First List may suggest the existence of other factors than degree of responsiveness operating differentially in the two samples. However, both of the two above-cited exceptional Ps pertain to the human figure in content. This might imply that there is a difference of degree of interest in the psychology of others between the two samples of respondents. Secondly, all of the six Ps of Hwang's not included in our list are located in Cards VIII, IX, and X, the three colored figures. This fact deserves some attention, though no ready interpretation can be offered at present.

As soon as the above intra-cultural comparison has been made, it is high time to compare cross-culturally our list of Ps with those provided by different authors for other cultural groups. For the sake of clarity and brevity, the chief comparisons to be made can be listed as follows:

The four Ps—Winged Creature to W in Card I, Human Figures to the main black area in Card III, Winged Creature to W in Card V, and Quadrupeds to the side pinks in Card VIII, as listed by Klopfer as Universal Populars, have been found in almost all of the P lists thus far obtained from different cultural groups in the world. With greatest percentages of occurrence, the same four Ps are also contained in not only our list but Hwang's First List as well. This latter fact, thus, can be regarded as an additional support to Klopfer's designation.

In Card IV, Animal Skin is often associated to W by Americans according to Beck (3), Hertz (11), Piotrowski (19), and Peak (18) and by Japanese according to Kodama (17) and Horimi, Tuzi, Nagasaka, and Hamanaka (12). But, the Chinese adults, in view of Hwang's and our results, fail to choose the same content for W with sufficient frequency, namely, an occurrence percentage of more than fourteen. Instead, they are, on the average, prone to respond popularly to W with Winged Creature and Human Figure. In this place, we recall that the same situation has been found in the P lists of several other cultural groups. For instance, Winged Creature and Human Figure, instead of Animal Skin, are scored as Ps to W in Card IV for Saulteaux by Joseph and Murray (14) and for Haitians by Bourguignon and Nett (6).

Although Card VI W Animal Skin was regarded as P for most cultures by most authors, Chinese, after Haitians (6) and perhaps other cultural groups, are another people who fail to make it to be a P. This failure, together with that of Card IV W Animal Skin, seems to indicate a rareness

of texture responses on the part of Chinese adults, which may be interpreted as a lack of awareness of contacts with others, as was done by Billig, Gillin and Davidson (5). In order to gain some support for this interpretation, a paragraph of Abel and Hsu's (1, p. 339) conclusive statements on Chinese personality, is worth quoting here:

Students of Chinese personality and informants interviewed in investigations on Chinese culture have repeatedly stressed the fact that the formal relationships the Chinese maintain with people, the control they show over their impulses, and the balance they keep between the self and the world around (nature), is related to the role each person is expected to play throughout his life. It is felt that if one approaches strangers too closely, reveals excessive spontaneity and impulsivity, one loses one's role and one forsakes one's equilibrium. Judging from the Rorschach protocols, our China-born groups, male and female, fit into this Chinese cultural pattern of controlling their impulses and maintaining a pliant but to some degree distantiated role in interpersonal relationships.

It probably is these formal relationships, the Chinese maintain with other people and the external world, which result in a lack of awareness of contacts with others. Of course, Chinese people's maintaining formal interpersonal relationships has its phylogenetic and ontogenetic reasons. In China, from the ancient days down to the present, rules of decorum have strictly governed people's behaviors. Spontaneity and impulsivity are not encouraged. Feelings and emotions, even those between children and parents, should be controlled firstly and expressed only via proprieties and other formal ways. In short, one should keep a proper distance, both physical and psychological, from others. This formalism has long been an important element in the practices of Chinese child training and under it Chinese young people achieve their detached roles in interpersonal relationships and their lack of awareness of contacts with others.

In Card VI, only one percept occurs as a P in our list. It is Turtle seen to W or lower two-thirds. This same percept qualifies as a P in Hwang's First List, too. As far as we know, this P response, unusual as it is, has not been found in any of the P lists established for the cultural groups other than Chinese. By reason of this, it is legitimate to consider Card VI W Turtle as a P unique to Chinese adults, in Hallowell's (8) designation of a Unique Popular. Because of the possibility that Unique Ps may indicate important cultural preoccupations, there should be some contributing factor, specific to Chinese culture, which makes Card VI W Turtle to be a Chinese Unique Popular. It is our opinion that familiarity may be this factor: In China, the

turtle as an interesting animal can be seen easily in the physical environment on the one hand and the Turtle as a concept or word is used very frequently in the language on the other. For the latter, we can list as examples several most frequently used metaphoric usages of Turtle in the every-day conversations, daily newspapers, and popular magazines: Turtle is used to designate: (a) a man whose wife treads the shoe awry with another, (b) a person who is a faintheart; (c) a person who is a pump; etc. More generally, Turtle is favorably used as an opprobrious word without definite metaphoric meaning by Chinese, especially, children, adolescents, and adults of lower level. For example, a little Chinese pupil, in order to bring some discredit on his disliked classmate's or teacher's name, may draw a simple form of a turtle on a sheet of paper, a class table, or a street fence with a piece of chalk or soft stone and then write that classmate's or teacher's name on the back of the drawn turtle figure or just beside it. By means of such a production, he is able to declare to himself or others that "so-and-so is a turtle" and consequently to discharge part of his frustration or anxiety. In addition, there are a number of prevailing stories which choose some things concerning turtle as their themes. A Turtle Running a Race with a Rabbit, which has been adopted as a lesson with pictures in most Chinese primary school textbooks, is one of these stories; thereby the importance of patience is vividly demonstrated to the children both by the teachers in school and the parents at home. In a word, for Chinese, Turtle is a highly familiar concept with a very low threshold for being selected as a response to a stimulus pattern somewhat similar to that of a turtle.

E. SUMMARY

In this study, ten Rorschach responses were determined as populars for the normal Chinese adults, based upon a sample of 347 respondents, and a set of six normal Chinese adults, based upon a sample of 347 respondents, and a set of six non-sample statistics of number and percentage was calculated for the non-sample statistics of number and percentage was calculated for the non-weighted and weighted populars. In addition, some intra- and cross-cultural comparisons were made between our list and those of other authors, and at least one popular, Card VI W Turtle, can be considered as unique to the normal Chinese adults.

REFERENCES

1. ABEL, T. M., & HSU, L. K. Some aspects of personality of Chinese as revealed by the Rorschach Test. In Mead, M., & Métraux, R. (Eds.), *The Study of Culture at a Distance*. Chicago, Ill.: Univ. Chicago Press, 1953.
2. AMES, L. B., et al. *Child Rorschach Responses*. New York: Hoeber, 1952.
3. BECK, S. J. *Rorschach's Test: I. Basic Processes*. New York: Grune & Stratton, 1949.

4. BECK, S. J., *et al.* The normal personality as projected in the Rorschach Test. *J. of Psychol.*, 1950, **30**, 241-298.
5. BILLIG, O., GILLEN, J., & DAVIDSON, W. Aspects of personality and culture in a Guatemalan community: Ethnological and Rorschach approaches. *J. Personal.*, 1947-8, **16**, 153-187, 326-368.
6. BOURLEIGNON, E. E., & NEIT, E. W. Rorschach populars in a sample of Haitian protocols. *J. Project. Techn.*, 1955, **19**, 117-124.
7. GUIRDHAM, S., *et al.* On the value of the Rorschach Test. *J. Ment. Sci.*, 1935, **81**, 848-869.
8. HALLOWELL, A. I. "Popular" responses and cultural differences: An analysis based on frequencies in a group of American Indian subjects. *Rorschach Res. Exch.*, 1945, **9**, 153-168.
9. ———. The Rorschach technique in personality and culture studies. In Klopfer, B., *et al.* (Eds.), *Developments in the Rorschach Technique*, Vol. II. New York: Harcourt, Brace & World, 1956.
10. HERTZ, M. R. The scoring of the Rorschach ink-blot test. *J. Genet. Psychol.*, 1938, **52**, 15-64.
11. ———. Frequency Tables for Scoring Rorschach Responses (4th ed.) Cleveland: Western Reserve Univ. Press, 1961.
12. HORIMI, T., TUZI, S., NAGASOKA, G., & HAMANAKA, S. A normative study of Japanese responses in the Rorschach: Osaka University Scale. In Motoaki, H., & Sotobayasi, T. (Eds.), *Rorschach Test* (2nd ed.) Tokyo: Nakayama Book Co., 1958.
13. HWANG, C. H. Rorschach popular responses in Chinese subjects. *Psychological Testing in China*, 1955, **3**, 1-8.
14. JOSEPH, A., & MURRAY, V. F. Chamorros and Carolinians of Saipan: Personality Studies. Cambridge: Harvard Univ. Press, 1951.
15. KLOPPER, B., & KELLEY, D. M. The Rorschach Technique. New York: World, 1946.
16. KLOPPER, B., *et al.* Developments in the Rorschach Technique, Vol. I. New York: Harcourt, Brace & World, 1954.
17. KODAMA, H. A normative study of Japanese responses in the Rorschach: Nihon Women College Scale. In Motoaki, H., & Sotobayasi, T. (Eds.), *Rorschach Test* (2nd ed.) Tokyo: Nakayama Book Co., 1958.
18. PEAK, H. M. Abstract of a pilot study of the popular responses to the Rorschach ink-blot test. In Buhler, C., *et al.*, *Development of the Basic Rorschach Score: Supplementary Monograph*. Los Angeles, Cal.: The authors, 1952.
19. PIOTROWSKI, Z. A. Perceptanalysis. New York: Macmillan, 1957.
20. RORSCHACH, H. Psychodiagnostik. Bern, Switzerland: Hans Huber, 1932.
21. TAIWAN CENSUS BUREAU. A Brief Census Report on Chinese Population. 1959.
22. YANG, K. S., SU, C., HSU, H. H., & HWANG, C. H. Rorschach responses of normal Chinese adults: I. The normal details. *Acta Psychologica Taiwanica*, 1962, **4**, 78-103.

Department of Psychology
National Taiwan University
Taipei, Taiwan
Republic of China

RACE RELATIONS AND CLASS STRUCTURES*¹

Western Reserve University

WALTER B. SIMON

The hostility of lower-class Southern whites against Negroes has frequently been noted. We are here going to supplement observations of this phenomenon with statistical documentation on the basis of analyzed election data. We are then going to propose interpretations of aspects that seem to have received no attention before, and which should provide a basis for fruitful studies of the triangular interrelationships of family structure, personality, and political attitudes.

A. DOCUMENTATION

References to the racist sentiments of lower-class Southern whites abound. Explanations appear to be most often in terms of status rivalry, as expressed in the words of an informant of Robert Penn Warren. Here we find the "red-neck" pointed out as the most likely source of violence in racial conflict because "he's got to have something to give him pride. Just to be better than somebody" (10, p. 43).

It is pertinent to recall in the context of the above prediction, recorded by Robert Penn Warren, that the red-necks have indeed been since then the source of violence in the South. Thus it was a mob from a nearby factory that a few years ago was instrumental in having a Negro excluded from the University of Alabama. The Negro student herself reported no unfriendliness on the part of other students, and the few diehard segregationists found themselves isolated and disapproved of by the majority.

Reports on the recent riots at the University of Mississippi on the occasion of enrolling a Negro student likewise point to the lower-class whites as the principal carriers of violent racial hatred. Ministers of upper- and middle-class churches and the university chapter of the American Association of University Professors have, on the other hand, condemned mob violence and the role played by the Governor of Mississippi.

* Received in the Editorial Office on January 7, 1963 and given prior publication in accordance with our policy on cross-cultural research.

¹ Revision of paper presented before the meeting of the Eastern Sociological Society in Philadelphia on April 7th, 1962 and published under the title "Klassenschichtung und Rassenfrage in den USA" in the *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, Vol. XIV, No. 2.

Marxists have always found it difficult to come to terms with the phenomenon of racial hatred among the lower-class whites. American Communists often pretended that this phenomenon simply did not exist when they made their revolutionary appeals to "black and white workers." Professor W. E. B. Du Bois took the Communists to task for this when he wrote in *The Crisis* in September, 1931, in his article on "The Negro and Communism":

... The persons who are killing blacks in northern Alabama are the white workers—sharecroppers, trade unionists and artisans. The capitalists are against mob law and violence and would listen to justice in the long run because industrial peace increases their profits. On the other hand, the white workers want to kill the competition of "Niggers." Thereupon, the Communists, seizing leadership of the poorest and most ignorant blacks, head them towards slaughter and jailslavery, while they hide safely in Chattanooga and Harlem (4).

In this article Professor Du Bois castigated the Communists severely for their policies in American race relations in general and for their activities in the so-called "Scottsboro Case" in particular. (Professor Du Bois was, however, an inveterate admirer of Joseph Stalin's regime. He was reconciled with the American Communists when their party went through one of its rituals of purging itself of "past blunders," in this case, the policies and activities to which Du Bois had objected. Professor Du Bois joined the Communist Party in October 1961, at the age of ninety-three. Neither Professor Du Bois nor any other Marxist scholar has been able to cope with the phenomenon of lower-class racism in terms of Marxist dialectics.)

It is a matter of historical record that the Populist Movement did a great deal of damage to the position of Negroes in the Southern States. In their history of *White and Negro Schools in the South*, Pierce, Carmichael, *et al.*, describe in detail how the Populists were reducing the allocation of funds for Negro schools in favor of schools for the poor whites (9). They state explicitly that "when the small farmer achieved power just after the turn of the century (in Mississippi) he openly expressed his antagonism toward Negro Education" (9, p. 49).

Empirical evidence for the tensions between Negroes and lower-class Southern whites appears also in the form of data from the mayoralty elections held in Atlanta, Georgia, in December, 1957. Here the Negro voters gave their support to the incumbent who was the candidate of the middle and upper class whites while he was opposed by a candidate of the poorer class whites.²

² The analysis of the data of the Atlanta mayoralty election of December, 1957

The Negro vote rallied solidly behind the incumbent, Mayor Hartsfield. The three precincts of Atlanta that were 100 per cent Negro (Precincts B, K, and N, of Ward 3) gave him 97 to 98 per cent of their vote. The five other precincts with 99 per cent or more Negroes (Precinct H of Ward 3, I of Ward 4, H of Ward 6, A and D of Ward 7) gave Hartsfield 95 per cent to 99 per cent of their vote.

Conclusions upon economic class as a factor among white voters are based upon a comparison between the eleven precincts, more than 90 per cent white that voted more than two to one for Maddox, the segregationist candidate, and the seven precincts more than 90 per cent white which the segregationists failed to carry. The comparison leaves little doubt that Mayor Hartsfield, uncontested favorite of the Negro voters, carried the more prosperous white precincts while his opponent beat him two to one among the poorer whites.

For the purpose of this comparison we have to turn to census data of the census tracts that make up these precincts. This provides a very crude measure since precincts and census tracts do not coincide, and one census tract, "f-5," even contains part of a 90 per cent white precinct that voted 72 per cent pro-Hartsfield and part of another that voted 70 per cent pro-Maddox. Yet the emerging pattern clearly indicates that the census tracts containing precincts 90 per cent and more white and more than 50 per cent pro-Hartsfield, rates economically higher than the census tracts containing precincts 90 per cent and more white that gave Maddox two-third majorities. The precincts that favored Hartsfield were in census tracts characterized by higher incomes and more education than those that favored Maddox.

The eight census tracts, 90 per cent or more white, which formed the seven precincts voting more than 50 per cent for the mayor:

LENGTH OF SCHOOL

In all 8 census tracts the median of school attendance exceeded twelve years

The nineteen census tracts, 90 per cent or more white, which formed the eleven precincts giving Maddox majorities of two-thirds or more:

ATTENDANCE

Only in 3 census tracts did the median school attendance exceed 12 years; in 12 census tracts the median school attendance was below 10 years

COLLEGE EDUCATION

The following proportion of adults had attended college for four years or longer:

30% in 1 census tract	30% in 1 census tract
24-26% in 4 census tracts	20% in 1 census tract

is based upon material from the following sources: (a) U.S. Bureau of the Census, *U.S. Census Population: 1950*, Vol. III, Census Tract Statistics, Chapter 2. Washington, D.C.: Government Printing Office, 1952, and (b) *Report of the Metropolitan Voting Council on the Election of 1957* (mimeographed in Atlanta in 1958).

A special acknowledgement is due to Robert Kahn, Dartmouth Class of 1960, who has provided all the above source material; he also identified the census tracts composing Atlanta election districts.

17% in 1 census tract
 11% in 1 census tract
 3% in 1 census tract

19% in 1 census tract
 10% in 1 census tract
 in the remaining 15 census tracts between 1.5% and 7% of all adults had attended college four years or longer

INCOME OF \$6,000.00 A YEAR OR MORE

50% in 1 census tract
 40% in 1 census tract
 35% in 1 census tract
 10% in 1 census tract
 9% in 2 census tracts
 6% in 1 census tract

17% in 1 census tract
 10-15% in 5 census tracts
 9% in 8 census tracts
 2-5% in 5 census tracts

Thus we find that in the mayoralty elections held in Atlanta in December, 1957, Negro voters supported solidly the incumbent who was at the same time the candidate of the middle- and upper-class white voters against the candidate of lower-class whites. In December, 1961 a new mayor of Atlanta was again elected by a coalition of Negro voters with middle- and upper-class whites. Election results from Little Rock, New Orleans, and other Southern cities suggest also that Negro voters, though themselves often among the poorest of the poor, support the candidates of middle- and upper-class whites against candidates of the poor whites.

The elections in Atlanta also appear of special interest with reference to the pattern in racial voting participation that has here emerged: in all elections heretofore analyzed voting participation was found to be lower among Negroes than among whites (with the exception of the deep rural South where Negroes have been deprived of their right to vote by force and fraud, low Negro voting participation could be understood on the basis of the traditionally lower voting participation of the lower-class voters). In Atlanta, voting participation among Negroes was higher than among whites in 1957 and even more so in 1961.

Already in 1957, 73.4 per cent of all eligible Negroes voted as compared to only 54 per cent of all whites. In December, 1961, Negro voting participation was so much greater than white voting participation that the 36 per cent of Negroes of Atlanta cast more than half of all the votes in the mayoralty elections. White voters apparently found it difficult to decide whether they should vote with the Negroes against the lower class whites or with the lower class whites against the Negroes. Caught between such painful cross-pressures, many of them preferred to abstain from voting. In view of the racist ideology of the candidate of the lower class whites, Negro voters of all classes had but little choice at the polls.

The low rate of voting participation among whites in Atlanta is also of interest as an instance of the effect of "cross pressures" on political behavior.

[The concept of "cross-pressures" was formulated by Lazarsfeld *et al* when they found that voters pulled in different directions by conflicting motives and interests were apt to resolve this conflict by abstaining (8).]

B. INTERPRETATION

The hostility between Negroes and whites is often explained in terms of economic competition or status rivalry (4, 10). It is the purpose of this paper to propose that differences in the family structures of lower-class Negroes and lower-class whites result in differences in personality that exacerbate—or even cause—that antagonism. We propose furthermore that the comparative similarity of the middle-class family structures of the two racial groups provide a basis for understanding between them.

Allison Davis and Robert Havighurst indicate that in child-rearing practices middle-class Negroes and middle-class whites follow similar practices that differ significantly and similarly from the child-rearing practices of the lower classes of both races (3). It appears, however, to be of greatest consequence that middle-class families of both races resemble one another also in the structures of their families, while the family structures of the lower classes of both races differ from one another more than from the family structures of the middle class.

The lower class families among Negroes are headed by women. In the words of Frazier: "Slavery caused the Negro family to develop as a natural organization with the mother as head" (5, 6). Among lower-class Negroes "... a child usually knows the mother's side of the family quite well and is able to give adequate information concerning relatives on this side, but knows little of the father and his people *even when the home is intact*" (2, p. 75). Among middle-class Negroes, however, the father tends to head the household, and to play the same role that the white middle-class father plays (2, p. 131; 7).

Conversely, we find among the whites that "lower-class wives are subordinated to their husbands" (1, p. 119). As we move up the social scale among whites, husband and wife share equally in joint social participation, and "in their overt behavior upper-class husbands and wives have, roughly, a relationship of equivalence" (1, p. 91).

Thus we find that the lower-class Negro family tends to be headed by mother or grandmother, with father gaining importance as we move up the social scale. The structure of the Negro middle-class family resembles in the equality between the spouses, the structure of the white middle-class family. As we descend the social scale among the whites, the role of the father tends to become more and more dominant.

It is now accepted that the structure of the family has a profound effect upon the formation of personality. It appears reasonable to expect that the differentials in family structures, outlined above, operate as causal factors in the dynamics of race relations.

C. SUMMARY

From the foregoing discussion we derive the following propositions on the basis of the differentials and similarities in family structures related to race and class:

1. Opposition to discrimination based upon race is strongest among *middle-class Negroes* and among Negroes aspiring to middle-class position. They realize that their exclusion and segregation can be justified only on the basis of racist theories that stamp them as genetically inferior.

2. Members of the established white middle-class tend to be ready to dispense with discrimination based upon race in part because they are least burdened by status anxiety. Internalization of democratic values and of principles of fair play are also likely to play a role here, but most important is probably the similarity in personality that is produced by equalitarian middle-class families, Negro as well as white.

3. The fierce insistence of lower-class whites upon continued and, if at all possible, intensified racial discrimination appears to be caused only in part by economic competition and status rivalry. The lower-class whites, bred in father-dominated families, are likely to be basically different from lower-class Negroes bred in families dominated by mother or grandmother. Consequently, Negroes and whites of the lower classes appear to one another as different types of beings, not only because of inbred attitudes of color perception, but also because of actually existing differences.

4. The opposition of lower-class whites to racial equality appears to be further exacerbated by the more permissive sex code of the lower classes. *Lower-class white men* fear that racial equality would make their own women more accessible to Negro men. The more puritanical sex code of the middle class tends to eliminate this consideration for *middle-class whites*.

5. Ever since the lower-class Southern whites have become politically articulate, they have opposed the middle and upper whites and have fought the Negroes. It appears as a possibility that to the extent that the lower-class Negroes attain a voice of their own, they may be expected to articulate opposition to middle-class Negroes whose leadership they by and large now tend to follow, and to give expression to militant hatred for whites. These attitudes are presently articulated by the so-called *Black Muslims* on behalf

of the urban lower-class Negroes in ways somewhat reminiscent of the ways in which, two generations ago, *Populism* in the South gave expression to the sentiments of the rural lower-class whites.

D. CONCLUSION

The behavioral sciences have concerned themselves with the relationships between family structure and personality, and with the relationships between personality and political attitudes. American race relations appear to offer an opportunity to study the interrelationships of family structure, personality, and political attitudes simultaneously.

REFERENCES

1. DAVIS, A., *et al.* Deep South. Chicago: Univ. Chicago Press, 1941.
2. DAVIS, A., & DOLLARD, J. Children of Bondage. Washington, D.C.: American Council of Education, 1940.
3. DAVIS, A., & HAVIGHURST, R. Social Class and Color Differences in Child-Rearing. In *Personality in Nature, Society, and Culture*, C. Kluckhohn & H. A. Murray, Eds. New York: Knopf, 1953. Pp. 308-320.
4. DU BOIS, W. E. B. The Negro and Communism. *The Crisis*, 1931 (Sept.), 313-315.
5. FRAZIER, F. E. Ethnic family patterns: The Negro family in the United States. *Amer. J. Sociol.*, 1948 (May), 53, 435-438.
6. ———. The Negro Family in the United States. Chicago: Univ. Chicago Press, 1939.
7. ———. The impact of urban civilization upon Negro family life. *Amer. Sociolog. Rev.*, 1937, 2, 609-618.
8. LAZARSFELD, P. F., BERELSON, B., & GAUDET, H. The People's Choice. New York: Duell, Sloan, & Pearce, 1944.
9. PIERCE, T. M., *et al.* White and Negro Schools in the South. Englewood, N.J.: Prentice-Hall, 1955.
10. WARREN, R. P. Segregation. New York: Random House, 1956.

Sociological Research Building
Western Reserve University
11027 Magnolia Drive
Cleveland 6, Ohio

A CROSS-CULTURAL STUDY OF PERSONS WITHIN THE INDUSTRIAL BELT OF CALCUTTA*

Department of Psychology, Calcutta University

BISWANATH ROY

A. INTRODUCTION

Pointing towards the myth of racial prejudice Pearl Buck says, "Race prejudice is not only a shadow over the coloured—it is a shadow over all of us The world will close down on us some day if race prejudice goes on dividing us" (2). We have many such horrible records that came out through race prejudice, in India and abroad.

After independence, India faced an uphill task of industrializing the country. For that we have seen many generous hands coming forward to fortify our efforts. Most of these helps came from the West. For that we are developing a form of perception about them. Many of our industries have grown up within the industrial belt that is being covered by the city of Calcutta.

The present investigation has been developed to find out whether such an industrial invasion has changed the opinion of the educated mass living within the city of Calcutta. As Calcutta is the heart of West Bengal, the opinions of the citizens of Calcutta of either sex who are directly associated with such foreigners through employment, and also those who are not so associated, have been considered here.

Studies of similar nature in different countries have been carried out by Guilford (4), Hartley (6), Katz and Braly (7), etc., all of which came out under the title, "Cross-Cultural Research." Ethnic attitude has been defined (5) as "an attitude which some person has toward one, some, or all members of an ethnic group other than his own, provided that the attitude is influenced in some way by knowledge (or presumed knowledge) of the other individual's group membership." One of the aims of this investigation is to show whether presumed knowledge or acquired knowledge has any influence in building up such an attitude. Here, university graduates expressed their opinion against twenty nationalities of Western and Middle East Countries.

* Received in the Editorial Office on February 21, 1963 and given prior publication in accordance with our policy on cross-cultural research.

B. PROCEDURE

1. *Subjects*

The total number of subjects was 400 male and female graduates of the universities, residing in Calcutta. They were either employed in a government concern or in a private foreign business concern. There were teachers and self-employed persons also. The distribution of the subjects is shown in Table 1.

TABLE 1
DISTRIBUTION OF THE SUBJECTS: PROPORTION, SEX PER CENT, SEX PROPORTIONS

Categories	<i>n</i>	Proportions	Sex		Sex per cent		Sex proportion	
			male	female	male	female	male	female
1. Employed in govt. concern	77	0.19	40	37	10.00	9.25	0.10	0.09
2. Employed in private foreign concern	205	0.52	180	25	45.00	0.63	0.45	0.07
3. Teachers	60	0.15	32	28	8.00	7.00	0.08	0.07
4. Self-employed	58	0.14	58	—	14.50	—	0.14	—
	400	1.00	310	90				

The samples were drawn from the different organisations within the city of Calcutta. The age range with its distribution is shown in Table 2.

TABLE 2
PER CENT DISTRIBUTION OF THE DIFFERENT AGE RANGES

Age	<i>f</i>	Per cent
25-26	32	8.00
27-28	96	24.00
29-30	150	37.50
31-32	69	17.25
33-34	30	7.50
35-36	23	5.75
<i>n</i> = 400		

The subjects answered to an enquiry whether they had any foreign friends or not. The enquiry revealed the following data in Table 3.

In another enquiry the subjects were asked whether at any time they were residing in foreign countries, town or village. There was an insignificant record of the persons who resided outside India which was not considered for observation.

2. *Method*

A form of questionnaire was distributed to each of the subjects. The printed form consisted of seven items of Bogardus social distance type

TABLE 3
PER CENT DISTRIBUTION OF THE SUBJECTS, HAVING FOREIGN FRIENDS OR NOT

Category	Yes		No		Per cent (yes)		Per cent (no)	
	male	female	male	female	male	female	male	female
1. Employed in govt. concern	29	5	11	32	7.2	1.25	2.3	8.0
2. Employed in private foreign concern	180	25	—	—	45.0	6.25	—	—
3. Teachers	12	27	20	1	3.0	6.75	5.0	.25
4. Self-employed	44	—	14	—	11.0	—	3.5	—
	265	57	45	33				

representing seven social relations (1). A number of competent judges rated a list of 15 items of Social Relations and they were asked to name the first seven items, those which appeared to be most prominent. Each item was attached with a five-point scale. The sigma-deviate method was selected for scoring purposes (8).

Goode and Hatt (3) have mentioned the limitations of the Bogardus Social Distance Scale, the theme of which has been applied here. Two of the limitations are (a) the assumption of equidistance between the scale points; and (b) the assumption that each point is necessarily "beyond" the preceding one. To overcome both of these difficulties the Likert five-point scaling method has been attached to each of the items. The seven items were:

1. I would like to marry him.
2. I would like him as my intimate friend.
3. I would like him as a guest in my house.
4. I would agree to take him as my neighbour.
5. I would like him as a co-traveller.
6. I would prefer to accept him as my office boss.
7. I would like to talk with him about culture.

Twenty national or racial groups, representing the Western and Mid-Western countries, were selected at random. The groups were American, Arab, Canadian, Dutch, Egyptian, English, French, German, Greek, Irish, Italian, Jew, Kabuli, Negro, Pakistani, Portuguese, Scotch, Swiss, Russian and South African Whites. The subjects were asked to judge each of the 20 groups against each of the social relations in the five-point scale, i.e., strongly agree, agree, do not know, disagree, strongly disagree. The results are given in Table 4.

In addition to *t*-tests, statements were carefully checked for (a) clear expression; and (b) concise, straightforwardness of the vocabulary. Negative forms were given up.

TABLE 4
RESULTS OF THE INTERITEM *t*-TEST TO SHOW THE SIGNIFICANT DIFFERENCES
BETWEEN ITEMS

Item combination	<i>t</i>	Item combination	<i>t</i>	Item combination	<i>t</i>
1-2	3.86	2-4	2.98	3-7	3.34
1-3	2.92	2-5	3.12	4-5	3.63
1-4	2.69	2-6	3.27	4-6	2.98
1-5	3.01	2-7	3.25	4-7	3.05
1-6	2.89	3-4	3.58	5-6	3.54
1-7	3.12	3-5	3.17	5-7	3.36
2-3	3.72	3-6	3.02	6-7	3.49

C. RESULTS

Sometimes favour or disfavour has been marked very prominently for some of the nations, by the subjects. The mean values for each of the nations and their corresponding rank order for each of the offered social relations have been recorded as shown in Table 5 below.

Intercorrelations were found to show the relative merits of the choices preferred by the subjects and also to show the degree of bias involved in preferring one nation or the other. These results are presented in Table 6.

From the obtained rank orders it is quite clear that Italians, Americans, Germans, French were top favourites for all relations. The Irish, Russians and Scotch came next, while South African Whites, Portuguese, Kabuli, Pakistani were the high disfavoured. The final order of all the nations in terms of favour, neutral, and disfavour are shown in Table 7.

High intercorrelations between rank orders tends to point out that subjects either favoured or disfavoured any of the nations when choosing them for any relation. A great deal of bias about certain of the nations was a clear indication in it. It may be said that favouring a certain nation might have questioned the merits of the different achievements of the nation in different fields (*viz.*, political, cultural, home, educational, socioeconomic, etc.). whereas in case of the middle or the disfavour group, either the subjects had the idea that their achievements in those fields were not as significant as those of favoured ones or they had no achievements at all! A consciousness of mutuality or similarity in intramental life may also be the cause underlying such preferences. So, we have seen how the presumed or acquired knowledge about these nations has developed a change in the subject's attitude.

D. SUMMARY

After independence, India is faced with different equally important problems to solve. Her problems (*viz.*, agricultural, industrial, educational,

TABLE 5
MEAN VALUES AND CORRESPONDING RANK ORDERS OF THE NATIONALS FOR EACH ITEM

National	Item 1		Item 2		Item 3		Item 4		Item 5		Item 6		Item 7	
	X	R.O.	X	R.O.	X	R.O.	X	R.O.	X	R.O.	X	R.O.	X	R.O.
1. American	1.76	2	1.72	1	1.63	2	1.70	2	1.58	1	1.68	1	1.63	4.5
2. Arab	-0.98	14	-0.69	14	0.26	14	-0.31	15	-1.62	18	-1.44	18	-1.58	18
3. Canadian	-0.15	10	0.12	11	0.35	12	0.28	13	0.21	13	0.35	12	0.14	12
4. Dutch	-0.78	12	-0.72	15	0.32	13	-0.11	14	-0.28	14	0.32	13	0.54	14
5. Egyptian	-0.92	13	-0.06	12	1.12	9.5	1.08	9	0.98	9	0.92	9	1.12	10
6. English	1.56	4	0.82	9	0.67	11	0.81	11	0.89	10.5	0.98	8	0.83	11
7. French	1.32	8	1.22	6	1.30	7	1.45	6	1.41	4	1.49	3	1.65	3
8. German	1.62	3	1.53	3	1.49	5	1.56	4	1.53	3	1.62	2	1.67	2
9. Greek	0.31	10	0.26	4	1.26	8	1.09	7.5	1.15	7.5	1.02	7	1.49	6
10. Irish	1.41	5	1.23	5	1.37	6	1.48	5	1.31	6	1.28	5	1.39	9
11. Italian	1.78	1	1.70	2	1.68	1	1.71	1	1.56	2	1.44	4	1.73	1
12. Jew	-1.19	15	-1.32	16	-0.28	18	-1.29	16	-1.21	15	-1.38	16	-1.34	16
13. Kabuli	-1.51	18	-1.38	18	-0.19	17	-1.46	17	-1.32	16	-1.41	17	-1.23	15
14. Negro	-1.26	16	-0.12	13	0.23	15	0.56	12	0.23	12	-0.34	14	0.22	13
15. Pakistani	-1.28	17	-1.35	17	0.21	16	-1.56	18	-1.44	17	-0.93	15	-1.45	17
16. Portuguese	-1.82	19	-1.72	19	-1.32	20	-1.59	19	-1.68	20	-1.72	19	-1.59	19
17. Scotch	0.85	9	0.52	10	1.12	9.5	1.02	10	0.89	10.5	0.82	11	1.48	7
18. Swiss	1.28	7	1.00	8	1.53	4	1.61	3	1.34	5	0.91	10	1.44	8
19. Russian	1.37	6	1.21	7	1.62	3	1.09	7.5	1.15	7.5	1.14	6	1.61	4.5
20. South African Whites	-1.53	20	-1.78	20	-1.02	19	-1.32	20	-1.64	19	-1.39	20	-1.81	20

TABLE 6
INTERCORRELATIONS OF THE OBTAINED RANK ORDERS

Items	1.	2.	3.	4.	5.	6.	7.
1.							
2.	.91						
3.	.92	.91					
4.	.91	.95	.97				
5.	.89	.95	.94	.98			
6.	.91	.95	.91	.92	.96		
7.	.87	.93	.92	.93	.95	.94	

TABLE 7
PREFERENCE GROUPS OF NATIONS

Favour	Neutral	Disfavour
1. Italian	1. Irish	1. South African Whites
2. American	2. Russian	2. Portuguese
3. German	3. Scotch	3. Kabuli
4. French	4. Canadian	4. Pakistani
5. Swiss	5. Egyptian	5. Arabs
6. English	6. Dutch	6. Jew
	7. Greek	7. Negro

employment, population, etc.) are pressing hard to produce different objective five-year plans. We have seen how different nations have come forward to help us to reach our goal. In a diametrically opposite picture, we are feeling the unfriendly behaviour of other nations, too.

In this study it has been shown how our "social perception" growing out of our needs and achievements (9), through subsequent help from others is taking shape amidst such international exchanges of helping others to grow up. Subjects either favoured a list of nations or disfavoured another list of nations, according to their feelings towards them, when they were asked to record their choices through seven social relations for twenty of the Middle East and Western nations.

REFERENCES

1. BEWARDUS, E. S. Social distance and its practical implications. *Sociol. & Soc. Res.* 1931, 17, 265-271.
2. BUCK, P. *Glass House of Prejudice*. New York: Morrow, 1946.
3. GOSSEL, W. J. & HATT, P. K. *Methods of Social Research*. New York: McGraw-Hill, 1952.
4. GUNFORD, J. P. Racial preferences of a thousand American University students. *J. Soc. Psychol.* 1931, 2, 179-204.
5. HARDING, J., KUTNEY, B., PROSHANSKY, H., & CHAIN, J. Prejudice and ethnic relations. In *Handbook of Social Psychology*, G. Lindzey, Ed. Cambridge, Mass.: Addison-Wesley, 1954.
6. HARTLEY, E. *Problems in Prejudice*. New York: Kings Crown Press, 1946.

- NAY, D. & HARRY, K. Racial stereotypes of one hundred students. *J. Am. Soc. Psychol.*, 1933, **20**, 280-290.
1. LUKER, R. A technique for the measurements of attitudes. *Ind. Psychol.*, 1932, **22** No. 140.
2. ROY, B. Effect of need on perception. Unpublished dissertation submitted for the Degree of MSc in Psychology, Calcutta University, 1939.

Department of Psychology

University of Calcutta

Calcutta 9, India

A CROSS-CULTURAL STUDY OF THE BEHAVIORAL ASPECTS OF THE CONCEPT OF RELIGION*

*Oklahoma State University and Delhi University*¹

ROY GLADSTONE AND G. C. GUPTA

A. THE PROBLEM

The problem with which this study was concerned was the dynamic connotation of the concept of religion for individuals and groups. The best index of the meaning of any concept to a person would be his behavioral responses to the incarnation of that concept. Such a response would be structured by the person's expectations concerning the impact of the structured stimulus on him. A meaning which retains some of the vitality of that index and has the virtue of being much more accessible is to ask people to describe the behavior which they suppose is structured by the concept. This was the mode of operation adopted for the present study.

This method of operation has its roots in the study of Biber and Lewis (1). Using children as their subjects, they presented pictures of teachers confronting children, the pictures conveying an emotional tone. The accompanying directions evaluated previous behavior of pictured child (i.e., the child has been good and S was asked to say what the pictured child had done).

Much the same technique as was used in the present study was developed by Gladstone and Sturgeon and used in a study by Sturgeon (2). Sturgeon found that Oklahoma State University students believed that religion would cause people to act much more often in a way which did not directly affect other people than in a way which did.

B. THE PROCEDURE

In the spring and summer of 1962, before the major outbreak of fighting between China and India, subjects (Ss) in India and in the United States were asked to write five specific things a religious person might do during the course of an average week as a result of being religious and five things he would not do. In addition, they were asked to indicate what percentage

* Received in the Editorial Office on March 4, 1963 and given prior publication in accordance with our policy on cross-cultural research.

¹ A Fulbright lecture fellowship and a sabbatical leave grant from the Oklahoma State University made it possible to carry out the study. Financial assistance for the publication of the study was furnished by the Research Foundation of the Oklahoma State University.

of the people in population centers of various sizes they believed would so act and what percentage of the people of various countries they believed would so act. The remainder of the unsigned questionnaire was given over to getting pertinent personal information.

1. *The Subjects*

The Indian population consisted of 141 graduate and undergraduate students in Delhi University, 75 per cent of them Hindu. The American population consisted of 89 undergraduate students of the Oklahoma State University, 80 per cent of them Protestant. While most of the Indian population came from Delhi and the neighboring states, there were a substantial number of students from all over India. The Indian Ss attended religious services on an average of 26 times per year.

The U.S. population came entirely from Oklahoma and the immediately surrounding area, the data from a few foreign students and students from distant states being discarded. This population thus came from the heart of the Bible belt and attended religious services an average of 56 times per year.

2. *Classification of Responses*

The final classification system used to order the essay responses (*Rs*) is given in Table 1. The classification system was developed in the following fashion.

1. Fifteen Indian papers were used to develop the initial classification system by generalizing each reply.
2. Forty-eight Indian papers were classified according to the initial system, the system being expanded when necessary to include several similar responses for which no category had been devised.
3. The 48 papers of #2 above were used by the two authors to practice the use of the system.
4. The next 50 Indian papers were used to test the consistency of classification in the following manner: Scorer A and scorer B classified each *R* independently. The per cent agreement of B's scores with those of A was noted for each category. Thus, if A scored 20 *Rs* in category 1a and B scored 18 of those same *Rs* in category 1a, per cent agreement was $18/20 \times 100$ or 90 per cent. The per cent agreement yielded by this scheme is noted in Table 1.
5. The Indian papers which had been used prior to the consistency check were then reclassified according to the expanded scheme and the remaining Indian *Rs* classified.
6. The U.S. *Rs* were then classified as a separate group. A few modifications of the scheme consisting of a slight expansion of a few categories was found desirable. The expansions are given in Table 1

by the material in parentheses. It is considered likely that the consistency of classification of the U.S. Rs was somewhat, but not much, lower than that of the Indian Rs. However, no consistency check was carried out here.

7. All specific categories with fewer than 1 per cent of the Rs in both the U.S. and the Indian sample were then dropped, the Rs of those categories being put into the x categories or category 10 of Table 1.

The number of percentage of Rs in each category for the two populations are given in Table 1.

Certain more or less arbitrary rules were used in placing a statement in a given category. (a) The first statement on a paper which was judged to belong in a specific category was placed in that category. (b) Subsequent statements judged to belong in that category were not placed in that category but placed in category 10 instead. Thus, a specific category has no more than one statement included in it from a single S. (c) A positive or negative statement was put in its proper class even though it was given in response to the opposite question. For instance, if an S said that a religious person would *not* do something when asked what he *would* do, the R was tallied in a negative class. (d) A statement which appeared to fit a general class, but no specific sub-class, was put in the x category of that general class. (e) A statement which could not be classified at all, including the lack of an answer, was put in category 10. (f) If one statement included more than one category, the first portion which was scorable in a specific category was used, the rest being ignored.

C. RESULTS OF CLASSIFICATION

Both the U.S. and the Indian population overwhelmingly said in effect that the religious person would act in a moral fashion, cynics being so few in number that no destructive or derogatory classes even approached the 1 per cent cutoff point. A few Ss said, for instance, that the religious people would speak in a derogatory fashion of the religion of others or try to force their religion on others. Many more, however, said the religious person would *not* do this. These results are consonant with those of Sturgeon (2).

It is possible to combine the specific categories further into two broad classes; those plainly having to do with interpersonal relations (classes 4, 7, and 8 of Table 1) and those which have nothing to do with interpersonal relations or which take their impact overwhelmingly from religion rather than from their impact on other people (classes 1, 2, 3, 5, 6, and 9). Using this dichotomous classification, 51 per cent of the Indian's Ss fall into the human relations category while 36 per cent of the Rs of the U.S.

TABLE 1
RESPONSE CLASSES

Positive classes	Per cent agreement**	R _s India	***** % India	R _s U.S.	***** % U.S.
1. <i>Ritualistic, religious-activity centered: will</i>		240	24.6	207	33.6
a. pray	100	56	5.7	63	10.2
b. attend temple, church or service	100	41	4.2	60	9.7
c. carry out religious rites: ceremony, fast (food-day relations*), read or talk religion	100	46	4.7	42	6.8
d. do duty, work hard	100	23	2.4	9	1.5
e. withdraw from world: isolate self, control senses, meditate	100	24	2.5	0	0
f. give money for religious purposes	***	4	0.4	9	1.5
x. other: (attend meetings, help at church*), etc.	91	46	4.7	24	3.9
2. <i>God centered: will</i>		52	5.3	1	0.2
a. believe, trust in God	100	27	2.8	1	0.2
x. other: remember, fear, worship God, etc.	100	25	2.6	0	0
3. <i>Will spread own religious ideals (witness, teach own children*)</i>	100	11	1.1	33	5.4
4. <i>Interpersonal relations</i>		262	26.8	94	15.3
a. poor centered: will be kind to, give charity to, respect, help, be polite to poor, etc.	94	48	4.9	0	0
b. be honest, tell truth, be sincere	100	69	7.1	7	1.1
c. help, serve others, social work; more or other than poor.	100	39	4.0	33	5.4
d. treat others with respect, courtesy, politeness; more or other than poor	100	27	2.8	5	0.8
e. treat others with kindness, hospitality, sympathy	100	25	2.6	9	1.5
f. treat people equally; ignore caste, be unprejudiced (no racial or religious discrimination*)	***	3	0.3	12	1.9
x. other: judge others and self the same, be loving, peaceful (care for family, be friendly, considerate, understanding, follow golden rule*)	100	51	5.2	28	4.5

TABLE 1 (continued)

Negative classes	Percent agreement**	Rs India	**** % India	Rs U.S.	***** % U.S.
5. <i>Religion centered</i> : will not		70	7.2	62	10.1
a. talk, act or think against others' religion	***	16	1.6	7	1.1
b. blaspheme or use bad language	***	3	0.3	35	5.4
x. other: will not act against own religion, etc.	100	51	5.2	22	3.6
6. <i>Social moré centered</i> : will not		66	6.8	65	10.6
a. drink (drink to excess*)	100	13	1.3	32	5.2
b. break sex morés	***	4	0.4	12	1.9
c. violate general eating customs	100	29	3.0	0	0
x. other: gamble, attend cinema (be seen in undesirable places or with undesirable companions*) etc.	100	20	2.0	21	3.4
7. <i>Honesty centered</i> : will not		114	11.7	72	11.7
a. lie	100	66	6.8	14	2.3
b. cheat	***	8	0.8	13	2.1
c. steal (will obey God's or man's laws*)	100	15	1.5	34	5.5
x. other: misguide, be deceitful, hypocritical, dishonest, etc.	100	25	2.6	11	1.8
8. <i>Human relations centered</i> : will not		124	12.7	56	9.1
a. hurt others; be cruel, kill: physical or verbal.	100	80	8.2	36	5.8
x. other: force will or religion on others, be selfish, etc.	100	44	4.5	20	3.2
9. <i>Thought and emotion centered</i> : will not		37	3.8	26	4.2
a. have strong, undesirable emotions; anger, greed, pride, jealousy (hate, will be patient*)	.93	23	2.9	9	1.5
x. other: hold self better than others (be forgiving, judge not*)	***	9	0.9	17	2.8
10. <i>Remainder</i> ****		434	*****	274	*****
		Σ 1410		Σ 890	

* Material within parentheses included for U.S. sample.

** Per cent agreement between classifications in category by authors.

*** If five or fewer statements were put in one category, per cent agreement was not calculated for that category.

**** Includes repetition of category on one paper, no R, and unclassified Rs.

***** Excluding class 10.

population fall into that class, a difference significant at less than the .001 level (Table 2). The results from the U.S. population are also consonant with those of Sturgeon (2).

TABLE 2
DIFFERENCE BETWEEN INDIAN AND U.S. SUBJECTS IN PER CENT OF CONCEIVED HUMAN
RELATIONS CENTEREDNESS OF RELIGIOUS PEOPLE

Country	Humanistic R_s^*	Total R_s Classified**	% Humanistic R_s	$SE_{\%}^2$
India	500	976	51.2	2.560
U.S.	222	616	36.0	3.740
				6.300

$$D_{\%} = 15.2$$

$$SE D_{\%} = \sqrt{6.300} = 2.51$$

$$CR = 6.06$$

$$^*F = 141 S_2 + 89 S_1 - 2 S_3 = 228 S_1 \text{ (not } R_s)$$

$$P\text{-Level} < .001.$$

* Including classes 4, 7 and 8 of Table 1.

** Excluding class 10 of Table 1.

No other relation which was tested using the human relations-religiosity dichotomy was found to be significant. The correlation between frequency of attendance at religious services and per cent human centeredness was .05 in the Indian group and .11 in the U.S. group, neither being statistically significant. Three castes, Kshatryia, Brahmin, and Vaish, did not differ significantly on per cent human centeredness, no critical ratio being above .54. The CR of the D_M of S_s from Delhi vs. those from the state of Punjab was 1.6. The CR of the D_M of the graduate S_s in the institute for teachers vs. non-teacher graduate S_s was .52. The CR of D_M of the male-female dichotomy in the U.S. on this issue was .07. The male-female difference in the Indian population was not tested since there were not enough males. Protestant-Catholic differences in the U.S. population were not tested because there were very few Catholics. In the cases cited above in which a correlation or CR was calculated, the N_s ranged from 21 to 110.

D. CONCEIVED BEHAVIOR IN POPULATION CENTERS OF VARIOUS SIZES AND IN VARIOUS COUNTRIES: PROCEDURE AND RESULTS

Having finished their description of the behavior of religious persons the S_s were asked to say what percentage of the people in population centers of various sizes and in various countries they believed act in the way they described (act as religious people act). For the purpose of summarizing those data, 99 Indian papers were selected at random from the total number

of those who had completed the item. The U.S. data consisted of all of the papers on which the items were completed, 83 and 80, respectively.

The data were dealt with in four randomized block designs and the results are summarized in Tables 3 through 7. Many Ss in both India and the U.S. indicated that they had little confidence in their own ability to answer the item concerning countries. Nevertheless their attitudes were far from random as indicated by the fact that so many significant differences were found, a result which is exceedingly unlikely to occur if the attitudes were really determined by random variables. It is obvious that the typical S in both

TABLE 3
MEAN PER CENT OF POPULATION CONCEIVED TO ACT IN RELIGIOUS FASHION

Indian Ss				U.S. Ss			
Part 1		Part 2		Part 3		Part 4	
Indian Communities: Increasing Size		Country	M_{rc}	U.S. Communities: Increasing Size		Country	M_{rc}
	M_{rc}				M_{rc}		
Village	70.44	India	54.51	Farm	60.35	U.S.	44.73
Sub-town	57.13	U.S.	40.82	Village	56.83	India	42.94
Town	46.75	England	45.93	Small city	48.59	England	46.90
City C	40.33	Russia	35.02	Large city	32.96	Russia	20.15
City B	37.75	China	37.00			China	29.10
City A	32.91						

TABLE 4
DIFFERENCES AND SIGNIFICANCE OF DIFFERENCES OF PART 1, TABLE 3*

	Sub-town	Town	City C	City B	City A
Village	13.31**	23.69	30.11	32.69	37.53
Sub-town		10.38	16.80	19.38	24.22
Town			6.42	9.00	13.34
City C				2.58	7.42
City B					4.84

* Row minus column. A positive difference indicates a more favorable opinion of the population center in the row.

** A difference of 1.61 is significant at the .05 level. Every difference is significant.

TABLE 5
DIFFERENCES AND SIGNIFICANCE OF DIFFERENCES OF PART 2, TABLE 3*

	U.S.	England	Russia	China
India	13.69**	8.58	19.49	17.51
U.S.		-5.11	5.80	3.82
England			10.91	8.93
Russia				-1.98

* Row minus column. A positive difference indicates a more favorable opinion of the country in the row.

** A difference of 2.62 is significant at the .05 level.

TABLE 6
DIFFERENCES AND SIGNIFICANCE OF DIFFERENCES OF PART 3, TABLE 3*

	Village	Small city	Large city
Farm	3.52**	11.76	27.39
Village		8.24	23.87
Small city			15.63

* Row minus column. A positive difference indicates a more favorable opinion of the population center in the row.

** A difference of 1.65 is significant at the .05 level.

TABLE 7
DIFFERENCES AND SIGNIFICANCE OF DIFFERENCES OF PART 4, TABLE 3*

	India	England	Russia	China
U.S.	1.79**	-2.17	24.58	15.63
India		-3.96	22.79	13.84
England			26.75	17.80
Russia				-8.95

* Row minus column. A positive difference indicates a more favorable opinion of the country in the row.

** A difference of 2.71 is significant at the .05 level.

countries believes that the amount of virtuous behavior falls as the size of the population center increases and that such behavior is exhibited differentially in various countries.

E. SUMMARY AND CONCLUSIONS

Indian (75 per cent Hindu) and U.S. (80 per cent Protestant) college students were given questionnaires requesting them to say what a religious person would do; what he would not do; what per cent of the people in population centers of various sizes would act as they believed religious people act; and what per cent of the people of various countries would act as they believed religious people act. The U.S. *Ss* attended religious services more than twice as often as did the Indian *Ss*.

The essay *Rs* were classified into ten classes. It was not necessary to use any derogatory classes; i.e., very few *Ss* believed religion would cause a man to act in a way which harmed other people or was otherwise undesirable. The 10 classes were subsequently broken down into two broad categories; human relations centered, including honesty, vs. religion and non-human relations more centered.

The typical Indian *S* conceived of the religious person as acting a greater percentage of the time in terms of human relations than did the typical U.S. subject. No other dichotomization of the populations yielded significant differences on this variable; i.e., the U.S. and the Indian populations seem

to be homogeneous within themselves in respect to the way they conceptualize the actions of the religious person.

Both the Indian and the U.S. Ss indicated their belief that, as population centers became larger, a smaller percentage of the people act in a religious way. Both the Indian and the U.S. populations also believed that the percentage of people acting in a religious fashion varied from one country to another.

F. DISCUSSION

In the light of the nature of the actions ascribed to the religious person it seems reasonable to suppose that the guesses of the Ss regarding the percentage of people in such countries who so act reflect or even help determine the attitude of the Ss toward the country. It should not be supposed, however, that this belief is the total determinant of the attitude. It is likely that a question revolving about the concept of goodness would evoke somewhat different Rs. After all, it is illogical to expect a person in the United States to carry out Hindu rituals. It is further possible that the people of one country may differentiate sharply between the people of a country, their leaders, and the international policies of that country.

REFERENCES

1. BIBER, B., & LEWIS, C. An experimental study of what young children expect from their teachers. *Genet. Psychol. Monog.*, 1949, **40**, 3-97.
2. STURGEON, R. S. Honesty and its relationship to various church-related activities. Unpublished Master's thesis, Oklahoma State University, Stillwater, 1962.

Department of Psychology
Oklahoma State University
Stillwater, Oklahoma



MEAD'S WAY OUT OF THE BASIC DILEMMA IN MODERN EXISTENTIAL THOUGHT*¹

Department of Sociology, University of Hartford

ROLLIN CHAMBLISS

Modern existentialism is not only a revolt against detached intellectualism, but also a fervent search for a way of escape from the dehumanizing forces at work in modern society. The human predicament, becoming increasingly serious because man knows so much more about nature than about himself, has created a mood of anxiety characteristic of our age. The existentialists, whether theists such as Kierkegaard and Berdyaev or non-theists such as Heidegger and Sartre, have in common an intense interest in concrete human experience. They prefer wisdom to abstract truth, and knowledge *how* to knowledge *about*. They share the opinion that the fundamental problem of our time is not technological but human. They remind us, as Socrates said twenty-five centuries ago, that, "the unexamined life is not worth living," pointing out that now especially, in these perilous times, man needs to know himself.

The search for authentic existence engages scientists, as well as philosophers, theologians, dramatists, novelists, and other creative artists. Some natural scientists are speaking out about human affairs, doffing if necessary their laboratory garments to appear not as scientists but as men. An anxious public hears them, overlooking perhaps the fact that competence established in the field of nature does not give one the right to speak with equal authority about man. Strangely enough, modern social scientists have been even more reluctant than natural scientists to follow their scientific findings through to the theoretical implications of these findings, just as they have not concerned themselves oftentimes with the practical applications of the knowledge they have developed. There is always the risk of being pushed by the demands of logic from what one knows into value commitments regarding the use of that knowledge, a risk that many social scientists avoid by confining themselves to certain limited operations in a severely restricted field of inquiry.

The dilemma of meaning in human existence, which lies at the heart of

* Received in the Editorial Office on August 24, 1961.

¹ Revision of a paper read at the annual meeting of the Southern Sociological Society, Miami Beach, Florida, April 6, 1961.

modern existential thought, probably appears to many social scientists to be a matter with which they are not professionally concerned. They are willing to leave it to theologians, philosophers, and other specialists not committed to the methods of science. They are likely to view with concern the pronouncements of natural scientists about human affairs, devoutly hoping that positive knowledge will not only be extended but also will suffice. Yet a growing number of social scientists, working especially in such fields as the sociology of knowledge, the sociology of religion, political sociology, value theory, and personality theory, have been interested in probing, with the tools of science, beyond the nature of things into the meaning of things. One of these was George H. Mead.

Mead has much in common with the existentialists, although he was not, of course, an existentialist. He was too deeply committed to rationalism to find congenial the logic of absurdity. His pragmatic philosophy required no final solution to the ontological problem. His faith in science inspired hope; the dominant mood of existentialism is despair. He believed that creative human intelligence could be better employed than in describing a journey through dread, an exercise which Kierkegaard, Sartre, and others have regarded as especially appropriate for existential thinkers (6). Nevertheless, Mead concerned himself directly with the basic dilemma in modern existentialism as no other social psychologist has done. Many of his ideas have been sharpened, expanded, and even corrected since he expressed them; personality theory has grown enormously during the last thirty years. But Mead was able, as few social scientists are today, to stand astride both science and philosophy. From that vantage he was able to gain a comprehensive view of human behavior rarely attained by modern scientists. Mead set out to depict the manner in which mind and self emerge; but having accomplished that objective, he went on to formulate what he called a philosophy of the act, which can fairly be regarded also as a science of meaning. It is the problem of meaning in human existence that creates the basic dilemma in modern existentialism. This study began as an attempt to discover what, if anything, modern social science has to say about the very real human dilemma that existential writers have so dramatically described. This paper will show that Mead's social psychology presents a way out of that dilemma based solidly on observation and reason.

The principles of existentialism are best presented, as many existential thinkers declare, by means of fiction, poetry, the drama, personal diaries, and the various forms of the fine arts, rather than abstractly by means of the concepts of science and metaphysics. The formal treatment of the subject

in such works as Heidegger's *Being and Time* and Sartre's *Being and Nothingness* creates a metaphysical labyrinth into which one concerned only with the basic dilemma in existential thought need not penetrate. Two myths selected from those used by existential writers will serve to illustrate that dilemma.

Dostoevsky has the Grand Inquisitor explain to Christ, who had appeared unexpectedly on a visit to the earth in the sixteenth century, that granting freedom to mankind was a mistake and that human freedom has proved to be a curse rather than a blessing. Men want to be happy, he says, but freedom makes them rebellious and sad. The Grand Inquisitor declares that in order for them to be happy men must have given to them an object of devotion, an authority to spare them the necessity of choosing between good and evil, and a vision of universal unity. If men were really free, he maintains, everything would be lawful, and even those who survived the resulting chaos would have nothing to live for. "Without a stable conception of the object of life," says the Grand Inquisitor, "man would not consent to go on living, and would rather destroy himself than remain on earth" (3, p. 189).

The second selection is a myth from Homer, which Albert Camus has interpreted as an illustration of the absurdity of human existence, a theme that pervades his novels and plays (1). The myth provides also the title for an essay in which Camus considers suicide as a way out of the dilemma presented by an individual's awareness of lack of meaning in his existence. Sisyphus, a wise and perhaps prudent mortal, was condemned by the gods to futile and hopeless labor. He was required to roll a huge stone up a hill, only to have it fall back to the bottom each time his task appeared about to be completed. Thus his labor was both endless and useless. If Sisyphus had been unaware of the futility of his task he might have been alternately sustained by hope and tortured by frustration, but he knew that his destiny was absurd (without meaning). That knowledge, Camus believes, transformed his misery into victory. "We must imagine Sisyphus as happy," says Camus, pointing a moral that Homer probably did not intend, the moral that a solution to the problem of meaning in human existence is found in abandonment of the quest for meaning.

This line of thought encourages flight from responsibility, forfeiture of freedom, and absorption in the world; since nothing really matters, seize the day. That attitude is not lacking in existential thought, but these two myths point to a more basic characteristic of existentialism: despair of true knowledge. Appearing at a time when the foundations of knowledge about the material universe are rudely disturbed by the new physics, existentialism

confronts man with the even deeper mystery of his own existence. The mystery of nature is deepened rather than dispelled by the increase in scientific knowledge. The natural scientist, says James B. Conant, is no longer engaged in mapping an orderly material universe; quantum and relativity theory have shaken faith in the idea of universal order transcending phenomena. The scientists who created the Newtonian world machine appeared to be explorers; modern scientists are best described, Conant believes, as policy-makers. A scientific theory is, he says, "not a creed; it is a policy—an economical and fruitful guide to action by scientific investigators" (2, p. 97). The natural scientists share with the existentialists, it is evident, a view of the universe that reveals it as characterized more by mystery than by discernible meaning.

The view of history as a divine drama unfolding itself through time has become blurred, to scientists and existentialists alike. Conant ventures the assumption that "the possibility may exist that our intentions and our overt actions have a relation to some large pattern of events," but he obviously finds in science, as he finds in the Book of Job, "a denial of the assumption that the universe is explicable in human terms" (2, pp. 184, 150). Thus, man's anguished cry "Why?", arising out of his urgent need for meaning in his existence, goes unanswered. He is simply *here*, not there; and *here now*, not then (Pascal). What he is (essence) is what he makes himself to be; there is no self to be realized (Sartre). Kafka's prisoner can not discover for what he is being tried, and another of Kafka's characters finds always closed to him the door through which he must pass. Kierkegaard solves his own problem by a faith leap to meaning not open to reason, and Heidegger, Sartre, and others suggest a way out through "total involvement" in feverish activity toward goals impossible of attainment. Existence is absurd, says Sartre, and it is equally vain whether one "gets drunk alone or is a leader of nations" (5, p. 627).

Mead, like most other social scientists, gives no support to such melancholy reasoning.² Furthermore, because of his primary concern with concrete human problems, Mead's analysis of meaning in human experience has particular relevance to the existential dilemma. Mead, as a pragmatist, shared with Kierkegaard, Marcel, and other existentialists an aversion to the webs

² Mead turns repeatedly to the topic of meaning throughout his writings. See especially, however, *Mind, Self and Society*, Chicago: University of Chicago Press, 1934, pp. 75-82, pp. 152-164, and pp. 173-178; *The Philosophy of the Act*, Chicago: University of Chicago Press, 1938, pp. 445-478 and pp. 494-519; "The mechanism of social consciousness," in *The Journal of Philosophy, Psychology, and Scientific Method*, IX, 8, 401-406, and "Social consciousness of meaning," in *Psychological Bulletin*, VII, 397-405

of philosophy spun with abstractions. The importance of a common point of view when engaging in a discussion of so vague a subject as meaning is evident. The term has such a variety of meanings that all too often a debate about meaning is only a babel of diverse tongues in which no meeting of minds is possible simply because those engaged in the debate are not talking about the same thing. Such a term as meaning can not, of course, be given the preciseness of a mathematical symbol or even the preciseness of many of the clearly defined technical terms used by scientists, but Mead and the existentialists are close enough together in their use of the term to make communication possible. Also, Mead shares with the existentialists an intense interest in what both he and they call the world *there*, the world to which the individual must adjust himself. Meaning in human experience relates to that adjustment, or, as Mead would say, the adjustive response made by the individual *is* the meaning of his act.

To Mead, meaning can itself become an object of thought, but much meaningful action lies below the threshold of consciousness. Meaning is not essentially psychical—i.e., it is not essentially a state of consciousness. The meaning of an object is the response it evokes, and that response may not be consciously made. For example, a chair means something to sit on, and its meaning is reflected in the act of sitting, even in the absence of reflective thought. A burnt child may avoid the fire without being conscious of a relation between the fire and an earlier painful experience. The act of avoidance, in this instance, is a meaningful act, both to the child and to an observer, even when meaning as such is not an object of attention. Mead speaks of a conversation of gestures, meaningful but unconscious, that may take place between two individuals, giving as examples the thrust and parry of fencers and the punch and guard of boxers.

Existential thought has been little concerned with meaning at the unconscious level, but when Mead proceeds to an analysis of meaning as it appears in the dialogue with self and with others, a situation in which gestures become significant symbols instead of mere stimuli, he gets into the existential debate. The existentialists are concerned primarily with *awareness* of meaning. Where response to a stimulus is made unconsciously, there is no awareness of meaning in the act; but there can be no response to a significant symbol without consciousness. A gesture becomes a symbol when a meaning which it is regarded as signifying is evoked by it. Mead regards the response to a significant symbol as the conscious meaning of that symbol.

By attempting to view human existence in its totality, the existentialists

find themselves confounded by its massive and opaque quality—what meaning has life? Mead directs his attention to the *acts* of living and asks what meaning these acts have. The first question can be answered only subjectively: meaning is a matter of personal faith. The second question, Mead believes, can be answered objectively: the meaning in the act can be rationally grasped. According to Mead, the individual acquires meaning in his acts, and consequently in his existence, in the same manner in which he acquires a mind and a self—that is, through social experience. Language provides the categories of thought, and mind arises as the human individual engages in conversation with himself by means of language symbols. Likewise, the self is a social emergent generated in the process of role-taking. The self has the characteristic that it is an object to itself. That part of the self which Mead calls the “me” is society’s representative in the individual, the attitude of others organized and internalized in him. This is the object in self-consciousness of the other part of the self which Mead calls the “I.”

Mead’s theory of the self requires no elaboration for the purposes of this study. What we need especially to consider here is the relation between that theory simply stated and the existential dilemma of meaning. Mead’s own example of the game makes clear that relationship. In a baseball game, for example, every act performed as a part of the game is charged with meaning—the throw, the catch, tagging a runner out on third, the umpire’s gesture. Nothing is absurd, because the game is played by rules that give meaning to everything. A batter who strikes out may feel disappointment and chagrin, but he can hardly feel that his striking at the ball was absurd. He learns the rules as he learns the game; meaning can not be dissociated from the act. Furthermore, his act means to him what it means to others, because meaning in the act is socially defined and is common to the members of the group. Human life is like a game in that the acts of living form a community of common meanings. These meanings change with time and vary with place, but they are never absent. They come to the individual with his mind and with his self, and from the same source (society) and in the same manner (role-taking). They do not prevent choice, but they set the limits to choice. Mead does not neglect the “I” part of the self, the assertive, innovating, creative part that subjects the “me” part to scrutiny; but although it is the self as a whole that responds, the “I” and “me” fusing in the act of response, meaning in the act derives from the “me.” Conformity in action to the expectations of others would be impossible without sharing the meaning that others attach to human behavior.

The application of this line of reasoning to the fate of Sisyphus is

illuminating. That fate could hardly have been absurd to the gods who ordained it; they knew what they were doing to Sisyphus. It was not absurd to the Greeks to whom Homer told the story; it illustrated a relationship between man and the gods which they recognized. Nor could it have been absurd to Sisyphus himself, to whom existence must surely have meant resignation to the will of the gods. From Mead's point of view, it was not knowledge of the absurdity of his fate that made Sisyphus happy; his happiness, if indeed he was happy, derived from his participation in a way of life that gave meaning and unity to his existence. A fate such as his fitted into a scheme of things charged at every point with meaning. Just as a game is possible because the acts in the game have meanings shared by the participants, so is society possible, not so much because certain acts are prescribed as because these acts have meanings common to the members of the society. Games differ, but in any particular game the play goes on because the acts of the participants are made meaningful by the ability of one individual to take the role of others. Societies differ, but social order is possible because a society is created by a body of common attitudes shared by its members and sustained by social action suffused with meaning. Living in a world of common action, man lives as well in a world of common meanings socially generated and socially sustained.

Mead's approach to meaning through the social self leaves unanswered such ultimate questions as *whence* and *whither* whatever exists, including mankind. But what Mead sought to explain was human behavior, not nature; and even with regard to mankind he had reservations about attempts to trace a process in the past "leading up to a goal which we can desire in the future." This is an exercise of faith rather than of reason, he said, concluding that "whatever faith of this sort we may carry in our souls, it has ceased to be an intellectual fabric within which we can state our problems if we wish to solve them intelligently" (4, p. 487). Mead's life-long study of human behavior has, nevertheless, the merit of showing that even so complex a subject as meaning in personal experience may be amenable within limits to rational interpretation. Certainly it is not a lack of meaning he discovers but a wealth of meanings, which, although they confront the individual with choice, bind him so closely to other individuals that he never stands alone.

REFERENCES

1. CAMUS, A. *The Myth of Sisyphus and Other Essays*. (Trans. by J. O'Brien.) New York: Alfred A. Knopf, 1955.
2. CONANT, J. B. *Modern Science and Modern Man*. New York: Doubleday, 1952.
3. DOSTOEVSKY, F. *The Brothers Karamazov*. (Trans. by C. Garnett.) New York: Dell Publishing, 1956.

4. MEAD, G. H. *The Philosophy of the Act*. Chicago: Univ. Chicago Press, 1933.
5. SARTRE, J. P. *Being and Nothingness*. (Trans. by H. E. Barnes.) New York: Philosophical Library, 1956.
6. USSHER, A. *Journey Through Dread*. London: Darwen Finlayson, 1955.

Department of Sociology
University of Hartford
Hartford, Connecticut

ORDER OF BIRTH AS A DETERMINANT OF PERSONALITY AND ATTITUDINAL CHARACTERISTICS*

New Brunswick, New Jersey

HERBERT GREENBERG, ROSEMARIE GUERINO, MARILYN LASHEN, DAVID
MAYER, AND DOROTHY PISKOWSKI

A. INTRODUCTION

Classification of human beings for the purpose of establishing typologies predates even Plato. The hope has long been that through placing man in one or another category or classification his behavior could be predicted. Most of these attempts have been based on physical typology; for example, Kretschmer, Sheldon and others. A few have been based on other characteristics. Order of birth, or the rank a child held in his family (eldest, middle, youngest, or only child), was used by Alfred Adler as a basis for predicting characteristic behavior of individuals falling into one or another of these ordinal categories (1, 6).

According to Adler, the first born is treated as an only child for some time. Then, all of a sudden, another child is born and he must share the attention of someone else, or he is "dethroned," so to speak. This term was coined by Adler and has been picked up by other writers who have used this expression. Many problem children, neurotics, criminals and drunkards have started their downward trend in just such circumstances as these.

The child tries to do everything in his power to regain his mother's attention, but in so doing he only antagonizes her, so he feels that she no longer loves him. He sometimes shifts his attentions to his father, where he may have the chance to regain his favorable position. As he grows older he may want to exercise some power of authority and he generally exaggerates the importance of rules and order; he is generally afraid that someone is going to come up from behind him and take his power away.

If the oldest child has been fully prepared for a younger child's arrival into the family, there may be no such reaction. Among such oldest children are those who imitate their father and mother and develop a keen interest in practicing and helping others. Adler states that the greatest proportion of problem children are oldest children.

The second child, according to Adler, must immediately share the attention

* Received in the Editorial Office on August 30, 1961.

of another child. A typical second child always acts as if he's in a race, always trying to catch up with someone. He is often more successful than the first child because he works and trains harder. In later life he resents authority and the leadership of others.

The youngest child is in a unique position. All other children can be "dethroned," but never he. He is always the baby and is generally spoiled. He spends his life competing with older children and sometimes develops tremendously as he works to excel the older brothers and sisters. Youngest children are quite often the pillar of the family. And yet, a large proportion of problem children comes from among this group. Quite often they cannot decide on any strong ambition because they want to excel in everything. Spoiled children can never be independent. Sometimes they have extreme inferiority feelings because everyone in the family is older and stronger than they are. The second largest proportion of problem children are the youngest children.

The only child also has a rival, but not a brother or a sister. He is always competing with his father for the attention of his mother. He wants to be the center of attention all the time and, as he grows older, he actually fears that he may have a brother or sister with whom he may have to compete. In later years, he often has troubles when he can no longer be the center of attention. Only children are often brought up in an environment full of anxiety. The parents have not had more children because they are afraid they could not manage economically, and thus they tend to over-protect their only child.

In short, it is Adler's contention that the ordinal position amongst siblings provides a sound method of classification. Each classification is able to yield definable and predictable personality patterns.

An opposite view is taken by Murphy, Murphy, and Newcomb (7), who state that a child's psychological position in the family hierarchy is of much greater significance than his ordinal family position. The authors were able to find little evidence of the pervasive quality of ordinal position, but were able to find other sociopsychological factors more related to personality characteristics.

The implications of these opposing points of view are, of course, enormous, both academically (the development of a scientifically sound body of knowledge), and practically in terms of use both in the study of personality and in the process of guidance and psychotherapy.

If Adler's hypothesis is substantially correct, diagnosis and treatment of mental illness can be eased greatly. Much that is presently little understood

may, with the ability to thus classify, become clear. Yet, the dangers inherent in an incorrect classification cannot be overemphasized. Perceptual distortion must inevitably result from focusing on this type of classification. This becomes infinitely more dangerous as the efficacy of such classification decreases.

B. PURPOSE

From the discussion above, it may be seen that the Adler concept of the importance of order of birth may be of substantial value if proven correct, but it also holds many dangers if it is accepted without sufficient substantiation. Murphy, Murphy, and Newcomb (7) state that they could find no evidence for the Adler premise. Neither, however, employed psychometric methods in arriving at his conclusions. It is the purpose then of this study to add to the available evidence, through the contribution of psychometrics to attempt to shed some additional light on this very basic question for personality study.

C. METHOD

1. Population

Two hundred and sixty-four Fairleigh Dickinson University evening session students, ranging in age from 18-62, were tested in groups ranging in size from 18 to 40.

2. Procedures

A battery of tests was administered to the population, along with a questionnaire designed to give sufficient personal and social data to establish comparison groups, and to derive the information, as to ordinal position of the respondent in his or her family. A few questions sought to determine attitudes towards the respondent's ordinal position and towards siblings. The group data derived from this questionnaire will be presented in the section entitled results.

The population was divided into sub or comparison groups, according to their ordinal position. Thus, the four subgroups were: oldest sibling, 97; middle child, 79; youngest of two or more children, 71; and only child, 17.

The test battery was selected to measure three broad psycho-dynamic factors, which would likely be affected differentially, given the correctness of the Adler hypothesis. These are attitudes, values, and personality. For this purpose, three standard highly reliable instruments were chosen: The California F scale, the Allport Study of Values, and the Gordon Personal Profile.

The California F Scale (2) is a measure of authoritarianism. That is, it measures an attitudinal and personality predisposition towards authoritarian thinking, leadership, etc. The Allport Study of Values measures the individual's value system in six broad areas: aesthetic, religious, theoretical, economic, social and political. The Gordon Personal Profile, is a personality inventory utilizing the forced choice approach. It measures ascendancy, responsibility, emotional stability, sociability, and total. The latter, Dr. Gordon, and the present researchers have come to believe measures self-esteem or self-love. The total battery takes just under an hour for administration.

The respondents were asked not to give their names and were told that we simply wanted to know how the group responded to the various questions in the test battery.

Upon completion of the test, the papers were divided into the four subgroups discussed above, based on their response to the appropriate question in the questionnaire. "Where do you rank in your family? Oldest,——, 3rd, ——, 2nd,——, youngest,——, etc."

Responses on the several questions on the questionnaire were tallied for each of the subgroups to determine comparability of the groups in order to leave ordinal position as the one variable. The attitudinal questions were also tallied for each of the four subgroups in order to determine the effects of ordinal position on attitudes towards ordinal position or towards siblings. Means and standard deviations were then found for each trait measured by the battery for each of the subgroups and critical ratios were found between comparison means. Thus, for example, on the trait of ascendancy on the Gordon Personal Profile, the mean for only group was compared with that of the youngest, middle, and oldest, while the mean for the youngest was compared with the only, middle and oldest, etc.

D. RESULTS

The four subgroups proved surprisingly comparable on the personal social data provided by the questionnaire. As might be guessed, the average age of the parents of the youngest group was older than that of the middle, while the oldest group had parents with the youngest average age.

The one striking group difference can be found in the economic status of the four subgroups. Thirty-five per cent of the youngest group reported income of \$6,000 or above, while 25 per cent of the older group, 25.6 per cent of the middle, and 6.5 per cent of the only reported such income. On the lower end, only 2.8 per cent of the youngest group reported incomes of

less than \$3,000, while 22 per cent of the oldest, 16.5 per cent of the middle, 40 per cent of the only indicated this income.

A large majority of the group wished for more siblings. All of the only children responded in this way. Only 15 per cent of the middle group would change their ordinal position, while 27 per cent of the youngest, and 38 per cent of the oldest wished to change theirs.

On the F-scale there were no significant differences between the subgroups: the highest critical ratio being .86.

On four of the Allport Scales there were virtually no mean differences among the groups. The means on the religious scale came to approximately 39, while the means for the other three scales, Theoretical, Economic, Political, were about 42. These means are right at the norm for the Study of Values.

Table 1A presents the means and standard deviations for each of the subgroups on the Aesthetic and Social scales.

TABLE 1A
MEANS AND STANDARD DEVIATIONS FOR THE AESTHETIC AND SOCIAL SCALES
OF THE STUDY OF VALUES

Comparison groups		Aesthetic	Social
Only	Mean	31.5	40.6
	SD	6.62	10.3
Youngest	Mean	36.4	35.5
	SD	4.3	9.3
Middle	Mean	37.7	36.9
	SD	8.8	7.2
Oldest	Mean	37.1	37.4
	SD	8	8.23

Table 1B presents the critical ratios between the means for each of the subgroups for the Aesthetic and Social scales.

From these tables it can be seen that the only significant differences can be found on the Aesthetic Scale; each of those involving the only group. That is, the only group is significantly less aesthetic as measured by the Allport, than any of the other three groups.

There is no significant difference between any of the other three groups. On the Social Scale none of the critical ratios reach the five per cent level of significance. However, the two highest critical ratios again involve the only group. Since the ratio for the only group is by far the lowest of the four, the close approach to the five per cent level is noteworthy.

TABLE 1B
CRITICAL RATIOS BETWEEN THE MEANS FOR COMPARISON GROUPS
ON THE ALLPORT STUDY OF VALUES

Comparison groups	Aesthetic	Social
only-youngest	2.73	1.76
only-middle	2.1	1.1
only-oldest	2.93	1.43
youngest-middle	.58	.93
youngest-oldest	.7	1.27
middle-oldest	.1	.33

Table 2A presents the means and standard deviations for each of the Gordon scales for the four comparison groups.

TABLE 2A
MEANS AND STANDARD DEVIATIONS FOR THE GORDON SCALES

Comparison groups		Ascendancy	Responsi- bility	Emotional stability	Socia- bility	Total
Only	Mean	48.8	54.1	46.8	55.6	51.4
	SD	27.6	32.6	31.	30.	35.6
Youngest	Mean	60.58	68.48	59.	60.42	58.56
	SD	37.8	42.3	36.5	37.4	21.9
Middle	Mean	56.6	62.5	49.2	54.8	58.3
	SD	27.	35.2	25.3	28.79	30.69
Oldest	Mean	46.4	57.6	46.6	51.2	48.8
	SD	31.04	30.51	31.48	28.65	31.78

Table 2B presents the critical ratios between the comparison means for each of the Gordon scales.

TABLE 2B
CRITICAL RATIOS BETWEEN THE MEANS OF THE COMPARISON GROUPS
ON THE SEVERAL GORDON SCALES

Comparison groups	Ascendancy	Responsi- bility	Emotional stability	Sociability	Total
only-youngest	2.24	1.47	1.44	.54	.77
only-middle	1.00	.90	.29	.10	.71
only-oldest	.32	.40	.02	.54	.27
youngest-middle	.67	.85	1.70	.92	.06
youngest-oldest	2.43	1.72	2.14	1.61	1.67
middle-oldest	2.16	.87	.55	.75	1.78

From these tables it can be seen that the youngest group is significantly more ascendant than either the oldest or only group; the critical ratios being near the one per cent level of significance. The middle group is also significantly more ascendant than the oldest.

On the Responsibility Scale there are no critical ratios that reach the five per cent level of significance; the closest, youngest to oldest, falling just short of this level. It is noteworthy, however, that what differences there are follow the same pattern as in ascendancy. That is, the highest critical ratios are between the youngest and oldest, and youngest and only, the youngest again, being on the positive side.

On the Emotional Stability Scale, the youngest group again stands apart from the other three. The youngest is significantly more emotionally stable than the oldest; the critical ratio falling just below the two per cent level. There is also a definite difference in the same direction, between the youngest and middle, and youngest and only, though both critical ratios fall short of the five per cent level. There are no differences between any of the other three groups.

None of the critical ratios on the Sociability Scale reach the five per cent level of significance, but what differences do exist follow the same pattern: the youngest group having the highest social score, 60.42.

Almost the same thing can be said for the Total Scale. Again, none of the critical ratios reach the five per cent level and again the youngest group has the highest mean of the four. In this case, however, the middle has the same mean virtually as the youngest and the critical ratio between the middle and oldest groups comes closest to the five per cent level of significance. The critical ratio between youngest and oldest falls just short of the five per cent level.

It should be noted here that the Gordon scores are expressed in percentile terms. Thus, even where there are significant differences between groups, none deviate substantially from the norm. The lowest mean for any of the five scales is 46.4; that being the oldest group on ascendancy. The highest deviates somewhat more from the norm, being 68.48 for the youngest group on the Responsibility Scale.

For all five scales, the youngest stood somewhat apart from the other three groups: the highest critical ratios, generally being those between the youngest and others, most often the oldest. The oldest group generally had the lowest mean. In one case, Responsibility, the only group had the lowest mean.

The trend on the Gordon is notably different from that on the Allport. The Allport showed far fewer significant differences than did the Gordon, and what differences did occur, generally involved the only, rather than the youngest group. The F-scale showed virtually no differences between the four groups.

E. CONCLUSIONS

A cursory glance at the foregoing section yields the immediate impression that certainly no strong case has been made for the Adlerian hypothesis. For most of the traits measured, little or no group differences appear. The lack of such difference on the F-scale offers a direct challenge to an important segment of the Adlerian hypothesis. According to Adler, as discussed in the Introduction, the only child wants to exercise some power of authority and he generally exaggerates the importance of rules and order. The second child may resent authority and may come to believe that there is no power that cannot be overthrown. These postulated differential attitudes toward authority are certainly not borne out by the F-scale results in the present study.

In previous research conducted by the senior author, a number of factors were found which affect authoritarianism, or attitudes towards authority. Such factors as religion, race, section of the country, yielded large mean differences. In a number of other studies, the F-scale proved to be the most discriminating instrument in the test battery. Thus, the lack of group differences in the present work becomes still more noteworthy. The researchers can find little explanation for the only group being less aesthetic than the other three. Only the rankest speculation, perhaps involving the lack of social stimulation of the only child might be attempted. We shall not indulge in this, however, since the subject is tangential to the Adlerian hypothesis, and there is simply too little evidence to permit legitimate speculation. Let us rather devote our attention to what is without question, the most striking finding. That is, the difference between the youngest group and others on the Gordon Personal Profile. The differences are clear and often statistically significant and convey the distinct impression that the youngest group is indeed a healthier one than the other three. This is not in accord with the Adlerian hypothesis that the youngest provide problems, second in number only to the oldest children. It does back Adler, however, in that sharp differences have been found based on ordinal position as a variable. Additional weight is lent to the Adlerian hypothesis by the fact that the oldest group in four out of five traits have the lowest mean percentiles. Thus, the oldest group is least ascendant, least emotionally stable, least social, and has the lowest self-esteem. It should be noted, however, that the critical ratios between the oldest and only, and oldest and middle are not significant in most cases.

An interesting additional fact regarding the youngest group is their substantially higher income. This would back the Adler concept that the youngest child is compensating for his felt inferiority to the older siblings by

constantly trying to excel them. It is because of this striving to excel that Adler feels the youngest group produces many problem children. The foregoing evidence does not lend weight to the concept that the youngest group produces problem children. The reason for the success of the youngest group may lie in the importance of the "dethronement." The youngest child, of course, is never "dethroned." He never feels the loss of love which inevitably must be felt by older siblings. True, he may, as Adler claims, need to excel in order to compensate for felt inferiority, but evidence of this felt inferiority does not exist in this study. On the contrary, the high scores on Emotional Stability, Ascendancy, and Total, all point to good self-love and high ego-strength level. The explanation may lie exactly in the direction in which the present study points: namely, that the youngest children may have some predisposing advantage over other siblings, due to an ego never weakened by "dethronement." The monetary success indicated may be due simply to the fact that this group is little plagued with neurotic illness; therefore, it is able to function efficiently enough to attain success.

A second explanation might be the lack of tension with which the parents handle the youngest child as compared with the first born. Much of the guilt, fear, anxiety and hostility frequently surrounding the birth process is acted out against the first born who also may suffer the psychological disadvantage of being the first to come between the newlyweds. With the birth of a second and third child the parents function in a far more relaxed manner, thus being able to give the child the consistency and even genuine love that the healthy personality requires. The results of the present study point indeed to a combination of the "dethronement" or lack of same and the foregoing. The middle child benefits from the more relaxed parental attitude, but does suffer the "dethronement," absent in the case of the youngest sibling. Though most of the mean differences involving the middle group are not statistically significant, the pattern presented is one in which the oldest group has poorest personality scores, followed by the middle, with the youngest, the beneficiaries of no "dethronement" and less parental tension being at the healthiest end.

Needless to say, the present work provides no definitive answer to the problems posed in the introduction. The sample is small and somewhat select and much is certainly lacking in the instruments utilized. Even the indicated higher earnings of the youngest group might easily be an artifact of the sample. From the foregoing, however, additional research may be suggested to further test the hypothetical discussion. First, a large scale study should be undertaken to determine whether ordinal position correlated with "success."

And, as should be done with many analytic concepts, projective techniques should be utilized to further test the Adlerian hypothesis, and the results, herein reported.

In summary, though there is some indication that ordinal position may play some part in personality formation, especially with the youngest child, the Murphy, Murphy, and Newcomb concept that psychological position is far more important would appear to be upheld by the findings of this study.

REFERENCES

1. ADLER, A. *What Life Should Mean to You*. Boston, Mass.: Little, Brown, 1931.
2. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, R. N. *The Authoritarian Personality*. New York: Harper, 1950.
3. GREENBERG, H., & FARE, D. An investigation of several variables as determinants of authoritarianism. *J. Soc. Psychol.*, 1959, **49**, 105-111.
4. GREENBERG, H., MARVIN, C., & BIVINS, B. Authoritarianism as a variable in motivation to attend college. *J. Soc. Psychol.*, 1959, **49**, 81-85.
5. GREENBERG, H., & HUTLO, D. The attitude of West Texas college students toward school integrating. *J. Appl. Psychol.*, 1958 (Oct.), **42**, 301-304.
6. HEINZ, L., & ANSBACHER, R. R. *The Individual Psychology of Alfred Adler*. New York: Basic Books, 1956.
7. MURPHY, G., MURPHY, L. B., & NEWCOMB, T. M. *Experimental Social Psychology* (rev. ed.) New York: Harper, 1937.

175 West 13th Street

New York 11, New York

SOCIAL INFLUENCES ON JUDGMENTS OF DESCRIPTIONS OF PEOPLE*

State University of New York at Albany and Renaissance Polytechnic Institute

ABRAHAM S. LUCHINS AND EDITH H. LUCHINS

A. INTRODUCTION

Social influences on judgment have been studied in relatively simple situations such as the judgment of the length of lines, pictures, etc. In previous papers (3, 6) we reported on several methods that attempted to maximize or minimize agreement with an overheard judgment concerning which of two lines was shorter. The present investigations explore the efficiency of these and other methods in more complex judgment situations, namely, forming impressions of people on the basis of written descriptions of their behavior. Apart from the theoretical issues involved in the use of more complex material, there is the practical issue that social influences on judgment frequently occur in situations where the evidence for judgment is more complex and less clear cut than are lines. Moreover, the present study may have some relevance for what happens when one forms an impression of a person on the basis of others' judgments of him or on the basis of his "reputation."

B. GENERAL PROCEDURE AND SUBJECTS

The material to be judged consisted of five pairs of paragraphs that described a person's behavior. In the first pair, the two descriptions were almost alike but the divergence between them increased with each pair. These paragraphs had originally been devised as a graduated series of eleven descriptions, ranging from extreme extrovertism at the beginning of the series to extreme introvertism at the end, with rather neutral behavior described in the middle paragraph of the series (cf. 8). In other words, the series was graduated in the direction of decreasing extrovertism and increasing introvertism. In the present study, Pair 1 consisted of the fifth and seventh members of the original series, i.e., the paragraphs adjacent to the middle, neutral paragraph. Pair 2 consisted of the fourth and eighth members of the original series, Pair 3 of the third and ninth members of the series, Pair 4

* Received in the Editorial Office on September 11, 1961.

of the second and the tenth members of the series, and Pair 5 of the first and last members of the series.

Instructions to the subjects, common to all the experiments, were essentially as follows:

In this experiment we are interested in your ability to judge personality. You will be given several pairs of paragraphs to read. For each pair of paragraphs I want you to tell me which of the two individuals depicted is the *more extroverted*. Extroversion is defined as behavior or interest directed to other people or to things and events outside the self.

Each pair of paragraphs was on a separate page. The first paragraph always described more extroverted behavior than the second paragraph.

A total of 284 college students served as subjects. In the control experiment (Experiment O) the paragraphs were presented to one subject alone. In the experimental variations the subject overheard one or more individuals make a judgment just before the paper that contained the paragraphs was handed to him to read and to judge. Justification to the subject for the order of responding was that the subject had entered the room last. The overheard responses were made by preinstructed college students (the experimenter's confederates). Three confederates were used in Experiments V and XII but one confederate in the other variations. In Experiments I through VII the overheard responses were always incorrect, i.e., the confederate selected the second paragraph that actually described *less* extroverted behavior, and designated it as depicting the *more* extroverted person. In Experiments VIII through XIV the overheard responses were always correct. The experimenter evaluated responses in some of the variations, referring to them as "right" or "wrong." This evaluation was made after both the confederate and the subject responded and before the next pair of paragraphs was presented.

After the experiment the five pairs of paragraphs were again given to the subject for judgment. This retrial, which was made after the confederate or confederates left the room, did not involve any evaluation of responses by the experimenter.

C. SPECIFIC PROCEDURES

Experiment O (control). As already mentioned, the paragraphs were shown only to the subject. No confederate was present and no evaluation was made by the experimenter.

1. *Incorrect Responses*

Experiment I (incorrect response). The confederate consistently gave incorrect responses.

Experiment II (confirmation of incorrect response). The confederate's incorrect response was consistently evaluated as "right" by the experimenter. The subject was called "right" only when he agreed with the confederate; otherwise he was "wrong."

Experiment III (confirmation of incorrect response in successive trials). After the procedure of Experiment II had been used, the experimenter said that the confederate had attained 100 per cent on the test but that the subject had not, and therefore the test would be repeated in order "to see if you too can get 100 per cent on such an easy test." The experiment was then readministered to the confederate and subject, the procedure being that of Experiment II. If the subject did not show complete conformity, the challenge to obtain 100 per cent was repeated and the experiment again readministered.

Experiment IV (foretraining). Through the use of additional instructions and repeated trials with a foretraining series of paragraphs, this variation sought to train the subject to agree with the confederate's judgments. At the onset of this experiment, the following statement was read:

According to Jung, a famous psychologist who originated the terms "introvert" and "extrovert," people's behavior may appear to be introverted even though they are really extroverts. The important thing is that they are suffering from inferiority complexes. Outwardly they may act either introverted or extroverted. To be able to judge if a person is introverted or extroverted, you cannot go by his overt behavior alone. Rather, you must know the psychodynamics of his personality. Only an understanding of Jungian psychology will allow a correct judgment to be made.

After this statement, the usual instructions were given and the foretraining series begun. This series consisted of four pairs of paragraphs. In each pair, the paragraphs were very similar, describing rather neutral behavior, neither strikingly introvert or extrovert. The confederate's responses in the preliminary series were always called "right." The preliminary series was readministered for a maximum of four trials, unless the subject previously showed complete agreement with the confederate's answers. Immediately after the last trial with the preliminary series, the usual five pairs were administered, the procedure being that of Experiment II.

Experiment V (three confederates). Three confederates gave incorrect

responses to each pair before the subject responded to it. The experimenter evaluated their responses as "right."

Experiment I I (rejection of incorrect response). The procedure was that of Experiment II with one important exception. Instead of calling the one confederate's incorrect response "right," the experimenter evaluated it as "wrong." The subject was called "right" when he disagreed with the confederate, i.e., when he made the objectively correct choice.

Experiment I II (rejection of incorrect response in successive trials). The procedure of the preceding experiment was used in successive trials, for a maximum of three trials, until the subject showed complete disagreement with the confederate's response. Before each readministration the challenge to get 100 per cent was given. Thus, the procedure was that of Experiment III except that the confederate's response was evaluated as "wrong" rather than as "right."

2. Correct Responses

Experiment I III (correct response). The confederate consistently gave correct responses, selecting the first paragraph in each pair as depicting the more extroverted person. As in Experiment I the experimenter did not evaluate responses.

Experiment I V (rejection of correct response). The experimenter claimed that the correct response, given by the confederate, was "wrong."

Experiment X (rejection of correct response in successive trials). The confederate gave correct responses which were called "wrong" and the experiment was re-administered and, if necessary, re-administered again, with a challenge to get 100 per cent. Thus, the procedure was that of Experiment VII except that the confederate now judged correctly.

Experiment XI (foretraining). This variation sought to train the subject not to agree with the confederate. The additional instructions and the foretraining series were as in Experiment IV. However, the confederate's responses, which were correct, were consistently called "wrong" in both the foretraining and usual series. The foretraining series was used until complete disagreement had been attained, up to a maximum of four times, and then the usual series was used with the confederate's correct judgment called "wrong."

Experiment XII (three confederates). Three confederates gave correct responses to each pair before the subject responded to it. The experimenter evaluated their responses as "right." Thus the procedure differed from

Experiment V only in that the confederate gave correct answers to the correct answers.

Experiment XII (confirmation of correct responses in successive trials). The procedure differed from Experiment X only in that the confederate's correct response was evaluated as "right" rather than as "wrong" in successive trials.

D. RESULTS

1. False Judgments

Table 1 gives the percentage of false judgments for each pair of paragraphs, the mean for all five pairs, and the mean for the last four pairs. The latter mean is presented, and will be focused on in the analysis of results, because in most variations the experimenter's evaluation could not have influenced the subject's response to the first pair of paragraphs.

Table 1 reveals that the most effective procedure for obtaining false judgments in the present study was Experiment III (mean of 68 per cent), with Experiment X next (63 per cent). Note that the paradigm of successive trials was used in both these experiments, with the confederate's incorrect response endorsed as "right" in Experiment III and his correct response called "wrong" in Experiment X. The third most effective method of obtaining false judgments was to have three confederates give incorrect responses which were called "right" as in Experiment V (48 per cent). Among those variations wherein one confederate offered incorrect responses, the highest percentages of false judgments occurred in Experiments III, II, and IV, which yielded means of 68, 36, and 33 per cent, respectively. Among those variations wherein one confederate offered correct responses, the highest percentages of false judgments were in Experiments X, IX, and XI, which had means of 63, 41, and 36 per cent, respectively. It is of interest that a given paradigm had the same relative rank in both kinds of experiments. In other words, of all variations with one confederate, the most effective in yielding false judgments were the successive trials, the evaluation on one trial, and the foretraining. This rank order holds for experiments where the overheard responses were incorrect as well as in experiments where they were correct.

Note that the foretraining, which involved evaluation of responses on a preliminary series as well as on the usual five pairs, yielded somewhat less false judgments than did evaluation on only the usual five pairs (cf. Experiments II and IV and also Experiments IX and XI). This suggests that the social forces did not operate in an accumulative manner.

The only variation which succeeded in minimizing false judgments was

TABLE 1
PERCENTAGES OF FALSE JUDGMENTS

Experiment	Confed. communications	Procedure	Ss	1	2	Responses			Mean 5	Mean last 4
						3	4	5		
0	none	no evaluation	10	20	0	0	0	0	4	0
I	incorrect	no evaluation	25	56	8	8	0	0	14	4
II	incorrect	called right	25	52	24	32	40	48	39	36
III	incorrect	called right successive trials	25	64	64	56	72	80	66	68
IV	incorrect	foretraining, called right	26	50	35	27	35	35	36	33
V	incorrect	3 confed., called right	10	60	50	40	60	40	50	48
VI	incorrect	called wrong	23	57	22	0	0	0	16	6
VII	incorrect	called wrong successive trials	10	20	0	0	0	0	4	0
VIII	correct	no evaluation	25	28	12	4	0	0	9	4
IX	correct	called wrong	25	40	44	24	64	32	41	41
X	correct	called wrong successive trials	10	70	70	60	60	60	64	63
XI	correct	foretraining, called wrong	25	48	40	40	32	32	38	36
XII	correct	3 confed., called right	10	20	20	10	0	0	10	8
XIII	correct	called right	25	44	28	4	0	8	17	10
XIV	correct	called right successive trials	10	0	0	0	0	0	0	0

Experiment XIV, where the confederate's correct response was evaluated as right in successive trials. Another variation that involved successive trials, Experiment VII, in which the confederate's incorrect judgment was evaluated as wrong, yielded no false judgments for the last four pairs.

Let us now consider those variations in which the social forces were introduced to operate in one direction. When they were opposed to the objective evidence and were intended to elicit false judgments (the confederate's response was incorrect and the experimenter evaluated it as "right"), as in Experiments II, III, IV, and V, the means of false judgments ranged from 33 to 68 per cent. In contrast, when the forces were in line with the objective evidence and were intended to operate against false judgments (the confederate's response was correct and was evaluated as "right") as in Experiments XII, XIII, and XIV, the means of false judgments ranged from only 0 to 10 per cent.

Let us now turn to variations in which the introduced forces were intended to operate in opposing directions. When the confederate's communication was incorrect but the experimenter's evaluation was opposed to false judgments as in Experiments VI and VII, only six and zero per cent false judgments, respectively, were obtained. However, considerable false judgments were obtained when the forces changed roles, so that the overheard responses were correct but the experimenter's verdict supported false judgments. This was the case in Experiments IX, X, and XI which yielded from 36 to 63 per cent false judgments. These results suggest that the experimenter's verdict was a stronger force than the confederate's response. Such a conclusion is also suggested by the comparisons of results which follow.

The confederate's judgment (incorrect in one variation and correct in the other) was the factor that differentiated between certain variations. It was this factor that distinguished Experiment I from VIII, II from IX, III from X, IV from XI, VI from XIII, and VII from XIV. In both members of each pair the experimenter's evaluation either was not introduced or it operated in the same direction in relation to the objective evidence. Means for the two experiments in each of the above pairs differed only by 0, 5, 5, 3, 4, and 0 per cent respectively. In short, a change in the nature of the confederate's communication seemed to have little influence on the results.

In contrast, the results differed sharply when the only factor varied was the nature of the experimenter's evaluation. This factor differentiated between Experiments II and VI, III and VII, IX and XIII, X and XIV. Differences in means now were 30, 68, 31, and 63 per cent, respectively. For example, Experiment III differed from Experiment VII only in that the

confederate's incorrect response was adjudged to be "wrong" rather than "right" in successive trials. But Experiment III had a mean of 68 per cent false judgments compared to zero per cent for Experiment VII. In summary, variation in the nature of the confederate's response did not yield a difference in the means larger than five per cent whereas variation in the nature of the experimenter's evaluation yielded differences of at least 30 per cent.

There were seven variations in which the experimenter's evaluation was opposed to the objective evidence and was intended to foster false judgments. These were Experiments II, III, IV, V, IX, X and XI. For brevity of exposition we refer to these experiments as constituting Series F. The remaining seven variations (excluding Experiment O, the control experiment) will be referred to as Series T. Thus the experimenter's evaluation was opposed to the objective evidence in Series F whereas in Series T either it was in line with the evidence or it was not introduced at all.

The effectiveness of the experimenter's evaluation can be seen in the fact that every experiment in Series F yielded more false judgments than any experiment in Series T. Means ranged from 33 to 68 per cent false judgments for the seven experiments in Series F as compared to a range of 0 to 10 per cent for the seven experiments in Series T. Note that there is no overlap between these ranges. Moreover, there is no overlap between the ranges of means based on all five responses: this range was 36 to 66 per cent for Series F and zero to 17 per cent for Series T.

The grand mean (based on the last 4 responses) was 46 per cent false judgments for the experiments in Series F but only 5 per cent for those in Series T.

Striking differences between Series F and T were found for every pair of paragraphs. False judgments for the first pair ranged from 40 to 70 per cent in Series F and from zero to 57 per cent in Series T; the averages were 51 and 32 per cent respectively. For the second pair, results ranged from 24 to 70 per cent for Series F but only from zero to 28 in Series T; the averages were 47 and 13 per cent, respectively. For the third pair (where there was no overlap in results between the two series) false judgments ranged from 27 to 60 per cent in Series F but only from 0 to 10 per cent in Series T, with averages of 44 and four per cent, respectively. Moreover, false judgments were obtained for every pair of paragraphs in each experiment of Series F, whereas in Series T false judgments were never found in the fourth pair and, with one exception, did not occur in the fifth pair. The one exception was Experiment XIII where there was 8 per cent false judgment in

the fifth pair. This one exception aside, every experiment in Series T yielded zero per cent false judgments in the last two pairs, where the divergency between the two paragraphs was greatest. In contrast, Series F yielded from 32 to 64 per cent false judgments with a mean of 52 per cent in the fourth pair and from 32 to 80 per cent with a mean of 47 per cent in the fifth pair. Thus, the difference between Series F and T averaged 19, 34, 40, 52, and 47 per cent in the first through the fifth pair respectively. In short, false judgments were consistently and significantly more frequent when the experimenter's verdict was opposed to the objective evidence as compared to when it was in line with the evidence or was not introduced.

2. *Retrial*

It will be recalled that after the confederate left the room the paragraphs were again presented to the subject alone, without any evaluation. The results were essentially what they had been when the confederate was present. In Series F the percentages of false judgments in the retrial tended to be as large or slightly larger than during the experiment, whereas in Series T they tended to be as low or slightly lower than during the experiment. False judgments averaged over 50 per cent in the retrials of the experiments of Series F but less than four per cent in the retrials of the experiments of Series T. Thus not only the amount but also the duration of the false judgments was greater in Series F than in Series T.

3. *Comparison with Judgments of Line Segments*

The procedures used in ten of the present variations are similar to those used in previous studies of social influences (3, 6) where the assigned task was to select the shorter of two lines drawn on each of five cards. Using the means based on the last four responses we find that procedures such as those in Experiments V and XI yielded 10 and 24 per cent less false judgments respectively for the paragraphs than for the lines. But procedures of the other comparable variations each yielded more false judgments for the paragraphs than for the lines; the differences for Experiments I, II, III, IV, VIII, IX, XII, and XIII were respectively 4, 32, 68, 10, 2, 35, 5, and 10 per cent. Comparisons of the means based on all five responses show the same picture; the procedures of Experiments V and XI yielded less false judgments with the paragraphs than with the line segments but the reverse was the case for each of the remaining eight comparable variations.

The difference between the two kinds of judgment material was even more

striking in the retrial. In the study with lines, the retrial yielded only objectively correct judgments. But in the present study there were false judgments on the retrial in most variations. The most striking differences occurred in the variations in which the experimenter's evaluation was opposed to the objective evidence, i.e., variations in Series F. The variations in Series F that were comparable to experiments with the lines showed, on the average, more than 50 per cent false judgments in the retrial compared to zero per cent in the retrial for the lines.

4. *Qualitative Data*

During the experiment subjects often hesitated before responding and showed signs of being puzzled. Such behavior was particularly prevalent when an incorrect judgment was called "right" or a correct judgment was called "wrong." Spontaneous comments were made by less than one-third of the subjects. The following illustrate the most frequent comments.

1. I don't see why my answer is wrong.
2. Do you want the *most* extroverted selected?
3. I'm sure of my answer.
4. There's something strange going on.
5. This is silly. What's the purpose?
6. Now I see something new about the described person.
7. I might as well be right.
8. What is an extrovert?

The above indicates the rank order of frequency of spontaneous comments for all the variations considered as a whole. Comments such as the first were about three times as frequent as the third or fourth comment and about seven times as frequent as either of the last two comments. For the variations in which the confederate's judgment was incorrect, the comments, arranged in order of decreasing frequency, were as follows: Comments 1, 2, 5, 4, 6, 7, 8, and 3. For the variations in which the confederate's judgment was correct, the order of decreasing frequency was as follows: Comments 3, 1, 2, 4, 6, 7, and 8. Note that comments such as the third, which indicate surety, ranked last when the confederate gave incorrect choices but first (i.e., most frequent) when he gave correct choices. It would seem that the nature of the confederate's communication influenced the qualitative data more than the quantitative data.

Comment 5 occurred mainly when there was a succession of trials. Comment 4 and other such overt indications of suspicion, which were made by less than 10 per cent of the subjects, were surprisingly infrequent considering

the nature of the experiment; they occurred about as often when the confederate gave correct as when he gave incorrect responses. Comments 6, 7, and 8 occurred primarily when the confederate's incorrect responses were evaluated as "right."

During the retrial, signs of hesitation and puzzlement were less frequently observed than during the experiment. Expressions of certainty (Comment 3) increased from trial to retrial when the confederate's judgments had been incorrect whereas such comments decreased from trial to retrial when the confederate had offered correct judgments. In general, the number and the kinds of comments were smaller in the retrial. Considering all the experiments together, the comments, in the order of decreasing frequency, were as follows in the retrial: Comments 1, 3, 6, and 5. This same order held for the retrial regardless of the nature of the confederate's response during the experiment.

After the retrial each subject was asked three questions. The subject whose responses during the retrial had differed from his previous responses was asked why his choices differed; the subject whose responses during the retrial were the same as before was asked why his choices were the same. Answers to this question fell mainly into the following categories which are arranged in order of decreasing frequency.

1. There was no reason to change.
2. On rereading I could see that the second person was more extroverted.
3. I was confused over the meaning of extrovertism and introvertism.
4. I changed my answer only for the first pair of paragraphs.
5. I had learned the right choices.
6. I had time to think about the difference between the two described people.
7. Each time I gave what I considered to be the honest answer.

The second question, intended to gauge the subject's reaction to the confederate, was: What do you think of the other person's judgment? Answers fell mainly into the following categories, which are arranged in order of decreasing frequency for all experiments considered as a whole.

1. His judgment is good.
2. His judgment is the same as mine and is good.
3. His judgment is not good.
4. He has a different opinion of extrovertism than I have.
5. I don't agree with his judgment.
6. He must have misinterpreted the paragraphs.
7. It sounds like he was told to answer as he did.

8. I cannot evaluate his judgment since I don't know who is right.

9. I did not pay any attention to him.

Frequencies of some answers differed considerably, depending on whether the confederate had given correct or incorrect responses. For example, the second answer, which was one of the most frequent when correct responses had been overheard, was the least frequent when incorrect responses had been overheard. Comments 3 and 4, which were among the most frequent when incorrect responses had been made by the confederate, were among the least frequent when he had offered correct responses. Here again we find an apparent influence of the confederate's answer on qualitative aspects of the experiment. On the other hand, whether the variation had been in Series T or F seemed to have little influence on the answers to this question.

The third question was: Did you take the other person's answer into account and why or why not? Answers fell primarily into the following categories arranged in order of decreasing frequency:

1. I did not take his answer into account. I had no reason to do so.

2. I did not take his answer into account. I disagreed with him.

3. Yes, I took his answer in account but I judged honestly.

4. Yes, I took his answer into account at first, but later I disagreed with him.

5. Yes, I tried to see why he answered as he did.

6. Yes, but later I just followed him.

The first answer listed was the most frequent both when the confederate gave correct responses and when he gave incorrect responses. In the latter variations the second type of comment was considerably more frequent and the third type less frequent than when correct responses were overheard. In both kinds of variations, about half of the subjects claimed not to have taken the confederate's answers into account. Such a claim was made even by some of the subjects who had agreed with the confederate's incorrect responses.

E. DISCUSSION

Most of the experimental methods yielded significantly more false judgments in the present study than in our previous studies which involved judgments of lines. Even more striking were the differences obtained in the retrieval after the experiment. Why these differences in results between the present and previous investigations?

1. Since the paragraphs were more complex than the line segments, the difference in results may be related to the conjecture that the more complex

the more ambiguous the stimulus, the greater the social influence on judgment. Although the main trends of results support this conjecture, they also suggest some restriction as to its generality. Contrary to the conclusion is the finding that two out of ten experimental procedures yielded more false judgments for the lines than for the paragraphs.

2. Not only is the stimulus given for judgment more complex in the present study but the judgmental process is also more involved and complex. The length of a line segment is a rather momentary perceptual attribute of it. One is not likely to ask, "Where is the length?" or "What is the evidence for the length?" But a person's extroversion is not an immediate attribute of a paragraph that describes his behavior. The subject has to feel evidence in the paragraphs with regard to the trait of extroversion. He has to abstract from each paragraph some notion of the described individual's personality trait and compare it with his conception of what constitutes a "more extroverted" person. Such a conception, when compared to the subject's conception of what is meant by "shorter," undoubtedly is less firm, less precise, more variable, and less likely to lend itself to simple and concrete operational definition. In determining the relative length of two line segments, one can dispense with a standard, such as a ruler, and compare them directly by imagining line A placed on line B so that they have a common endpoint. If B is not completely covered, then A is shorter than B. But the two paragraphs cannot be compared directly. Nor is there as precise a notion of the difference in extroversion that they represent, as there is of the difference in the length of two line segments. The tasks would be more comparable if, for example, the present study had asked for the shorter of the two paragraphs. The relationship between the paragraphs and the judgment of "more extrovert" is less direct, less concrete, and more abstract and symbolic than is the relationship between the lines (or the paragraphs) and their relative lengths.

3. Some subjects' comments suggest that their conception of what constitutes an extroverted person or a more extroverted person changed during the course of the experiment. The changed conception helps to account for the large number of false judgments in the last two parts and in the retrial. In contrast, the line experiments apparently did not influence subjects' ideas of what is meant by shorter. It is true that some subjects justified their false judgments in the line experiments on the grounds that perhaps a perceptual illusion was involved so that what appeared to be shorter was actually longer. But this belief did not carry over to the retrial and it did not seem to alter their basic notion of what is meant by shorter.

4. Another reason for the difference in results may be the difference in the subject's expertness with reference to the tasks. College students presumably were quite capable of judging which of two line segments was shorter but they were relatively less expert (or, at least, less experienced) in judging extrovertism. It may be conjectured that the less sure or less expert the individual feels himself to be with regard to a judgment task, the more apt he is to be influenced in his judgments by someone he considers an expert. This conjecture is supported not only by the difference in college subjects' results in the line experiments and the present experiments, but also by the finding that young children gave more false judgments of the lines than college students. Presumably the children regarded themselves as less expert in this respect. It should be of interest to utilize the paragraphs and the methods of the present investigations with young children who do not know the concept of extrovertism.

Implicit or explicit in the writings of such social philosophers as Le Bon and Tarde (1, 2) and such experimentalists as Sherif (11, 12) and Miller and Dollard (10) is the conjecture that the inept will look up to the expert, that people who lack knowledge and understanding in a given area will look up to those who are purported to be knowledgeable and to have understanding. The present results not only support this conjecture but also indicate that reliance on the expert may exist even when his opinion is belied by the objective evidence. Perhaps this was because the subjects considered that the experimenter had the key to the test, that he knew the answers, while they did not necessarily know them. The experimenter's verdict, when it was opposed to the evidence, may therefore not have seemed arbitrary to some subjects but may have been regarded as reasonable because it was based on knowledge of psychology which the subjects lacked. It is of interest that the experimenter usually seemed to be accepted as the person "in the know" whether he was a psychologist with a doctorate or a graduate student of psychology or an undergraduate major in psychology. The subjects, who had agreed to be tested by a person officially approved by the psychology department, apparently regarded the experimenter, regardless of his academic status, as a "legitimate authority."

Because of the dominant role of the expert in judgment situations, it is advisable to seek for the conditions that maximize as well as the conditions that minimize his influence. With the present judgment material the authority's influence perhaps can be weakened by lessening the assurance with which he gives the verdicts. He might hesitate when he makes the evaluations; he may say that he does not know the correct answers but that

it is his impression that this or that answer is right; he may say that he is not sure of this evaluation and that he might be incorrect; he may claim that there really is no right or wrong answer but that he decided to call one kind of answer right; he may make his decision as to which is the right answer by tossing a coin in the presence of the subject or by using some other arbitrary means. Or the experimenter might appeal to other people who are in the room and ask them to help him decide on the verdict.

The effects of divided authority may also be introduced, e.g., by having two experimenters who do not agree on the evaluations. Perhaps consistency added to the force of the experimenter's evaluations since he consistently judged that the right choice was the first paragraph or consistently judged that it was the second paragraph. Would the experimenter be less effective if he varied his judgments in the course of one trial or in the course of successive trials?

In the present variations the confederate did not challenge the experimenter's verdict. What would happen to the results if he did? In addition, he might give reasons to support his own choice and to negate the experimenter's evaluation. Moreover, how would the results be influenced if the confederate were introduced to the subject as a psychologist? Would it be a case of divided authority if the psychologist as confederate were called wrong by the psychologist as experimenter and with whom would the naive subject side? Moreover, what would happen if the subject himself were a psychologist?

Other variations may be made in the nature of the judgment material. For example, instead of paragraphs describing behavior we might use communications which involve historical events or data. The task would be that of judging the historical adequacy of two conflicting communications, and the subjects may be individuals whose field of specialization is history or those who are not specialists in this field. Communications for judgment might contain Biblical information and be given to subjects who are ministers and theological students. Lawyers and law students might be asked to judge communications concerning points of law. Or graduate students of physics might be asked to judge communications that concern some aspects of physics in which they have specialized.

In all these cases, if the experimenter is a student or teacher of psychology, how would his effectiveness in fostering false judgments compare with his effectiveness in the present study and in the line experiments? And how would his effectiveness compare with that of an experimenter who is known as a specialist or expert on the particular communications?

Such variations may help to ascertain whether the influence of the ex-

perimeter is due to the fact that he is "in authority" in the situation or that he is "an authority" of the matter being judged. This issue is related to the theoretical problem of the nature of prestige suggestion—whether such suggestion is a function of status, of power and, or of one's expertness in the situation.

5. The experimenter's evaluation seemed to have more influence than the confederate's response. This leads to the question: What would happen if a confederate were not used but the experimenter evaluated the subject's response? Preliminary experiments suggest that false judgments can be obtained in this manner. The presence of the confederate however, seems to serve as "social facilitation." When a confederate was used subjects seemed somewhat more cooperative, more willing to make a judgment, and to continue to participate in the experiment than when there was no confederate. Perhaps they thought that since the other subject was willing to cooperate, they should also. Thus, although the confederate may not necessarily have been the cue for the subjects' responses, he may have served as a "model of cooperation."

6. Some of our subjects never gave false judgments whereas others did, for all or most of the pairs of paragraphs. It might be said that the subjects differed in suggestibility, conformity, persuasibility, or some other such personality traits. It seems to us advisable to be cautious about attributing the behavior in the experiment to a characteristic of the person *qua* person. If subject A is more affected by social influences in one situation than is subject B, does it necessarily follow that this will be the case under other conditions? It may be unjustified to conclude that subject A is more suggestible, more conforming, or more persuasible than subject B. Rather than drawing such a conclusion, we might try to vary conditions in attempts to see if each subject can be made more or less prone to the social influence and, in the extreme, if the relationship between them can be reversed so that subject B shows susceptibility and subject A does not. Such research, even if it does not attain its goals, may help us to understand the factors that determine social influences and perhaps even help us to learn something about conditions (including conditions in the individual) which tend to maximize or minimize false judgments. This may lead to the study of and characterization of individual differences in terms of the transformations necessary to maximize or minimize the subject's false judgments (4, 5, 7). This is quite different than imputing to him a characteristic which brings about his false judgments.

7. Some subjects were concerned more with being called right than with

being truthful about what they read. They were concerned more with being correct in the eyes of others than being objectively correct. Perhaps this is related to a fairly common tendency to seek validation of our judgments, perceptions and ideas in the eyes of others. It seems that we want others to see what we see, as does the toddler who says "see this," pointing out what is obviously in front of him and his parents. If others see what we see and judge as we judge, we seem to be surer that we are seeing and judging correctly. At least we seem to be happier about it. When others doubt what we see, we may become unhappy, confused, and even lose our moorings in reality. It is the unusual individual who is not affected by having his judgments or perceptions repeatedly unaccepted or invalidated. This tendency to see what others see, or at least to say what others say, may have contributed to the present results. That this tendency is not a general characteristic of the human mind but occurs under certain conditions, is suggested by the different results obtained when line segments were used instead of paragraphs. The question may be raised: What can be done to make people more faithful to the objective evidence in the face of being contradicted by "social reality"? To borrow a phrase from Orwell's *1984*, what can be done to fortify one against "collective solipsism"?

8. Our experiments as well as most experiments on social judgments may be characterized as dealing with "isolated situations" in the sense that the subject's responses regarding the evidence have little or no consequences beyond the immediate experimental situation. Apart from his being called right or wrong, his judgment does not have consequences for his future actions or for the future of what is being judged or for the relationship between him and the object of judgment. The only thing that matters is his relationship to the confederate or to the experimenter or his status or grade on a test. There are life situations of this kind. But, there are other life situations in which judgments about a person, object, or event have consequences for the social field which may include the judge and the judged, e.g., testimony in court, laboratory testing of materials, judgments in a clinical situation. We have to be careful about generalizing to such life situations from experimental situations that are "isolated." Research on social influences should be broadened to encompass such life situations.

9. Our results are theoretically inconclusive. Cognitive as well as non-cognitive factors seem to be involved and therefore lend support to theories which stress cognitive or noncognitive concepts. Without denying the value of resolving the conflict between these theories, we think that it is important to devise experiments that will extremize social influences on

judgment, on the one hand by the use of only cognitive factors and, on the other hand, by the use of only noncognitive factors. Our previous work (7, 9) implies that there are different consequences for the individual's behavior, and perhaps for his personality functioning, if his responses are based on cognitive factors or noncognitive factors. Regardless of the fact that the responses may have the same effect on the evidence (which is described correctly or incorrectly), there may be different consequences for the individual and his social field if the responses are brought about by cognitive factors rather than noncognitive factors. As long as we continue to focus mainly on the truth or falsity of the response with regard to the evidence, we get an appearance of similar results because of ignoring the role and function of the judgment and its consequences for the person and the situation. Different processes may lead to the same result as far as the truth or falsity of the response is concerned, and yet actually have different or the same effects on other aspects of the judgment situation and on the individuals concerned. Similarly, the same process may lead to different responses regarding the object of judgment and yet may have different or the same consequences for the individual and the judgment situation. Research is needed to study the actual effects of the judgment on the person and on the social field, if we are to develop understanding of the nature of social influences on judgment. Truth or falsity of judgment at times has consequences for the person and society. Broadly speaking, what we are proposing is a study of what happens to people and to situations when individuals act cognitively or noncognitively while dealing with matters of truth or falsity.

F. SUMMARY

Fifteen experiments were described that attempted to extremize true or false judgments of the personality of a described individual. The procedures used were similar to those utilized previously for the judgments of line segments. Social influences were not only greater with the present material than with the line segments but were also of longer duration. Whereas in the studies with line segments subjects gave veridical judgments when tested alone after the experiment, in the present study they persisted in false judgments even when tested alone after the experiment. As with the judgments of lines, an authority was a more potent factor in producing false judgments than a majority of one's peers. Possible interpretations of the results were discussed and suggestions made for future research.

REFERENCES

1. BECKER, H., & BOSKOFF, A. *Modern Sociological Theory*. New York: Dorsey, 1957.
2. BOGDANUS, E. S. *The Development of Social Thought*. New York: Longmans Green, 1960.
3. LUCHINS, A. S. On agreement with another's judgment. *J. Abn. & Soc. Psychol.*, 1945, **39**, 97-111.
4. ———. A variational approach to social perception. *J. Soc. Psychol.*, 1955, **42**, 113-119.
5. ———. A variational approach to phenomena in social psychology. In M. Sherif and M. O. Wilson (Eds.), *Emerging Problems in Social Psychology*. Norman, Okla.: Univ. Book Exchange, 1957.
6. LUCHINS, A. S., & LUCHINS, E. H. On conforming with true and false communications. *J. Soc. Psychol.*, 1955, **42**, 283-304.
7. ———. *Rigidity of Behavior*. Eugene, Oregon: Univ. Oregon Press, 1959.
8. ———. Social influences on impressions of personality. *J. Soc. Psychol.*, 1961, **54**, 111-125.
9. ———. Imitation by rote and by understanding. *J. Soc. Psychol.*, 1961, **64**, 175-197.
10. MILLER, N. E., & DOLLARD, J. *Social Learning and Imitation*. New Haven: Yale Univ. Press, 1941.
11. SHERIF, M., & CANTRIL, H. *The Psychology of Ego-Involvements*. New York: Wiley, 1947.
12. SHERIF, M., & SHERIF, C. W. *An Outline of Social Psychology*. New York: Harper, 1956.

Department of Psychology
State University of New York
Albany, New York

THE DISTRIBUTION OF SUCCESSIVE INTERVAL JUDGMENTS OF ATTITUDE STATEMENTS: A NOTE*¹

Department of Psychology, Oklahoma State University

WILLIAM W. RAMBO

A. INTRODUCTION

The method of successive intervals requires the assumption of a normal distribution of judgments along the psychological continuum. The tenability of this assumption may be evaluated by plotting the cumulative proportion of responses against cumulative interval width. When this regression is plotted on normal probability paper a straight line fit indicates a normal distribution of responses. Several studies have presented support for the normality assumption in situations in which descriptive adjectives (3) and judgmental words (4) were scaled, and Edwards and Thurstone (2) report supportive findings from a study in which food items were scaled along a preference continuum.

There is little empirical evidence, however, concerning the appropriateness of this assumption for judgments of complete statements of the type generally used in attitude scales. Furthermore, no attempt has been made to relate deviations from normality to the position of the stimulus on the psychological continuum. The purpose of the study to be reported is purely descriptive. An attempt will be made to describe the distribution of judgments of a group of attitude statements, and relate deviations from normality to the scale position of the statement.

B. METHOD

The stimuli used in this study were items that had been extracted from the Thurstone and Chave scale measuring attitudes toward the church (6). Nineteen statements which were equally spaced along the Thurstone and Chave scale were selected and presented for judgment. Each statement was reproduced on a 4 × 8-1/2 inch sheet, and these sheets were assembled into booklets which contained instructional material as well as the distribution of state-

* Received in the Editorial Office on September 13, 1961.

¹ The author acknowledges the support of the Oklahoma State University Research Foundation.

ments. Beneath each statement appeared a nine category scale which represented the attitude continuum. Categories were numbered from 1 to 9, and the extreme categories as well as the middle were identified by the anchors, *very favorable*, *very unfavorable*, and *neutral*. Statements were randomly arranged in the booklets, and Ss were asked to circle that scale value which they perceived as most accurately reflecting, "the degree of favorableness/unfavorableness of a statement."

The Ss were 106 undergraduates who were enrolled in several sections of an introductory psychology course at Oklahoma State University. Ss were tested in groups of about 30.

C. RESULTS AND DISCUSSION

The computational procedures followed in estimating interval width are outlined in Torgeson (7, pp. 221-227). When the cumulative proportion of responses was plotted against cumulative interval width on normal probability paper it was observed that in only a few cases were there noticeable deviations away from linearity. Considering only those data points between .03 and .97, it was observed that 13 of the 19 statements yielded functions which were essentially linear. Of the six statements for which there were definite nonlinear trends evident, only one statement, "I do not believe in any brand of religion or in any particular church, but I have never given the subject serious thought," produced a marked deviation away from linearity. Associated with this statement was a bimodal distribution of judgments. Figure 1 presents two typical nonlinear functions for Statement 1, "I believe church membership is almost essential to living life at its best," and Statement 18, "I regard the church as a static, crystallized institution and as such it is unwholesome and detrimental to society and the individual." It is quite apparent from these data that the deviations from linear regression are not particularly severe. In view of the work reported by Rozeboom and Jones (5), and Adams and Messick (1) which indicates moderate distortions in the normality assumption produce only slight changes in scale value, it seems safe to conclude that the normality assumption required by the method of successive intervals did not prove to be a serious obstacle in the scaling of attitude statements of the type used in this study.

Finally, for each regression line the average deviation from a least squares linear function was determined. It was observed that deviations from linearity bore no consistent relationship with the position of the stimulus on the successive interval scale.

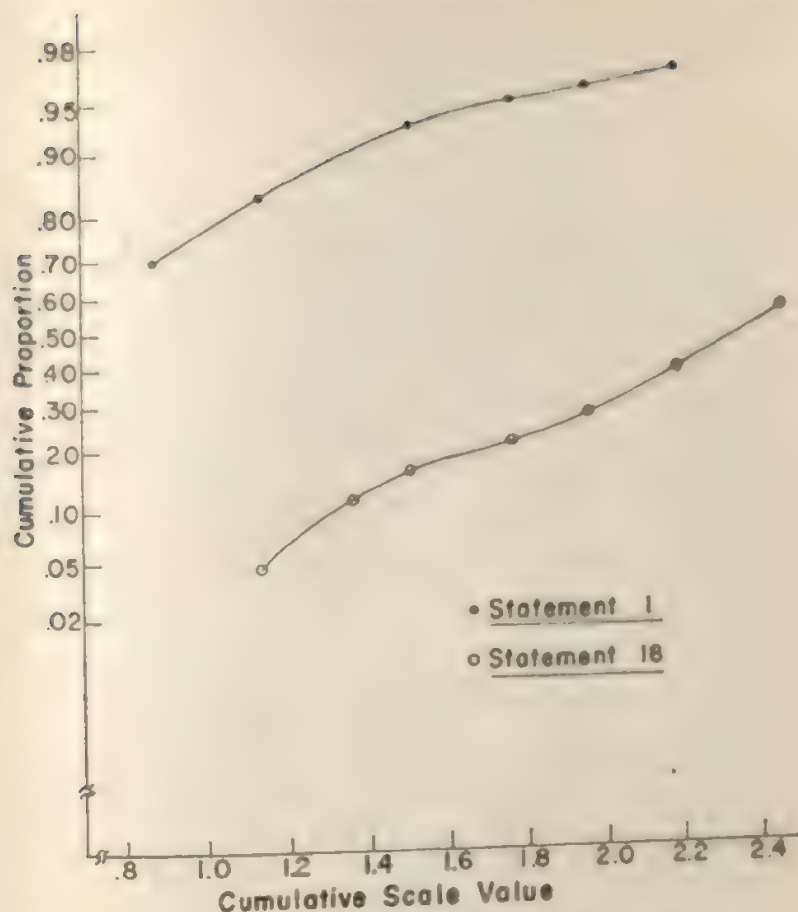


FIGURE 1
GRAPHICAL PLOTS FOR TWO TYPICAL NONLINEAR FUNCTIONS

D. SUMMARY

An attempt was made to describe the distribution of categorical judgments of a group of attitude statements. The method of successive intervals was used to estimate the interval values of the psychological continuum. With the exception of one statement which yielded a bimodal distribution of judgments, it was observed that deviations from normality were not particularly severe. Therefore, it was concluded that the normality assumption

required by the method of successive intervals did not prove to be a serious obstacle in the scaling of attitude statements of the type used in the study. Also, deviations from normality did not appear to be related to the position of the stimulus on the scale.

REFERENCES

1. ADAMS, E., & MESSICK, S. An axiomatic formulation and generalization of successive interval scaling. *Psychometrika*, 1958, **23**, 355-368.
2. EDWARDS, A. L., & THURSTONE, L. L. An internal consistency check for scale values determined by the method of successive intervals. *Psychometrika*, 1952, **17**, 169-180.
3. JONES, L. V., & THURSTONE, L. L. The psychophysics of semantics: An experimental investigation. *J. Appl. Psychol.*, 1955, **39**, 31-36.
4. MOSIER, C. I. A psychometric study of meaning. *J. Soc. Psychol.*, 1941, **13**, 123-140.
5. ROZEBOOM, W. W., & JONES, L. V. The validity of the successive intervals method of psychometric scaling. *Psychometrika*, 1956, **21**, 165-183.
6. THURSTONE, L. L., & CHAVE, E. J. *The Measurement of Attitudes*. Chicago: Univ. Chicago Press, 1929.
7. TORGESON, W. S. *Theory and Methods of Scaling*. New York: John Wiley, 1958. Chap. 10.

Department of Psychology
Oklahoma State University
Stillwater, Oklahoma

PREFERENCES FOR ABSTRACT AND REPRESENTATIONAL ART*¹

Wesleyan University

ROBERT H. KNAPP AND ALAN WULFF

A. INTRODUCTION

It is the purpose of the present article to report on a research into the preference for abstract and representational art. In an earlier article (1), the senior author reported on the personality attributes associated with preference for different styles of abstract art. The present inquiry has sought to explore the personality correlates associated with preference for representational vs. abstract art in general, though limited, as we shall see, to a single *genre* of painting, namely, still lifes. In addition to inquiring into the qualities associated with this general disposition of aesthetic preference, we have sought to determine whether eclecticism of taste is to be identified with qualities of ideational fluency and originality. This has constituted the second main purpose of this inquiry.

No student of cultural history could be unaware of the fact that a profound revolution in aesthetic taste has manifested itself with ever-increasing clarity over the past century or more. This revolution has consisted in the progressive decline in the popularity of representational art in favor of abstract and subjective artistic forms. It is a reasonably fair statement to assert that the prevailing artistic tastes of Western civilization showed an emergence from stylized abstract form in the late Middle Ages, and thereafter the ascendancy of representational art until at least the mid-19th century. Since that time there has been a persistent decline in the esteem accorded representational art and a corresponding rise in preference for abstract and subjectively derived modes of artistic expression. This historical phenomenon, while mainly the concern of art historians and cultural anthropologists, is probably not without its significance in the field of personality. It is the writers' conviction that the process of historical change, particularly with respect to such matters as artistic taste, reflects a shifting in style of the modal personality of a civilization and its members. Thus, a study of

* Received in the Editorial Office on September 18, 1961.

¹ The research reported here was supported by the National Institutes of Mental Health under Contract M-2178 to Wesleyan University.

the personality and cultural attributes of those attracted to representational and abstract art may have illuminating significance concerning the movement of our culture as a whole, and it may further serve as a revealing index of the qualities of individual persons.

We would surmise, for example, that the aesthetic cathection of representational art and objects of everyday experience would indicate a confident and happy relation with the physical environment. If, as we surmise, aesthetic cherishing betokens a kind of libidinal investment in the object, then preference for representational art should be associated with the cherishing of physical objects and a generalized rapport with the physical universe. On the other hand, the repudiation of the object world as an aesthetic form and the cathection of abstract and subjectively derived forms might be taken as a form of world denial, and associated with qualities of narcissism, withdrawal, and the quest for subjective encystment.

The second main line of inquiry has pursued the hypothesis that eclecticism of taste in aesthetic preference may betoken a kind of openness and flexibility of perceptual appreciation which in turn should be associated with ideational fluency, originality, and spontaneity. The implicit presumptions underlying this hypothesis may be stated as follows. Aesthetic commitment to a particular style should probably be associated with a perceptual blindness to the merits of other styles and more generally to the alienation of certain modes of thought and association.

Unfortunately, as we shall presently disclose, the second of our hypotheses is quite unsustained by experimental evidence. The first of our hypotheses, on the other hand, that preference for abstract art or representational art is significantly related to independent personality measures, has yielded some secure and thought provoking results. In the ensuing report we shall dwell almost exclusively upon data germane to the first of these hypotheses.

B. METHOD AND PROCEDURE

The subjects used in this experiment consisted of 88 male undergraduates. They could be fairly described as an intellectually selected group of young men as compared with the national average. The dependent variables employed in this inquiry were derived from a test consisting of 36 still lives incorporating varying degrees of representational, as opposed to abstract, stylistic qualities. Three judges were employed in the selection of these 36 paintings (presented as Kodachrome slides). The intercorrelations between the judges in rating the paintings on a seven-point scale from representational to abstract exceeded .95, on the average, indicating exceptionally high agreement as to the character of the paintings involved.

The paintings were divided into three groups on the basis of the judges' ratings—an abstract, an intermediate, and a representational group, numbering 12, 13 and 11, respectively. The titles and painters are shown in Table 1.

The subjects were shown these paintings in a randomized order and

TABLE 1
LIST OF ARTISTS AND PAINTINGS IN ART TEST

ABSTRACT GROUP

1. Picasso, *Still Life on a Table*
2. Braque, *Round Table*
3. Braque, *The Table*
4. Picasso, *Still Life*
5. Picasso, *The Table*
6. Gris, *Le Canigon*
7. Rivera, *Still Life with Liqueur Bottle*
8. Picasso, *Pitcher and Bowl of Fruit*
9. Gris, *Still Life on a Chair*
10. Gris, *Le Journal*
11. Gris, *Fruit Dish and Bottle*
12. Picasso, *Still Life with Mirror*

INTERMEDIATE GROUP

1. Renoir, *Onions*
2. Cezanne, *Vase of Flowers*
3. Braque, *Peonies*
4. Matisse, *Apples on Tablecloth*
5. Gauguin, *Still Life*
6. Cezanne, *Black Clock*
7. Bonnard, *Still Life by Evening Light*
8. Cezanne, *Still Life*
9. Gauguin, *Flowers of Tahiti*
10. Van Gogh, *Still Life with Onions*
11. Cezanne, *Still Life with Apples*
12. Dickinson, *Still Life with Bread and Fruit*
13. Kalf, *Still Life*

REPRESENTATIONAL GROUP

1. Chardin, *Still Life*
2. Peto, *Closet Door*
3. Zurburan, *Still Life*
4. Harnett, *After the Hunt*
5. Chardin, *The White Table Cloth*
6. Harnett, *Detail of Still Life with Pipe*
7. Spelt, *Flowerpiece*
8. Subleyras, *Bust with Still Life*
9. Moudecoter, *Still Life*
10. Huysum, *Flowerpiece*
11. Chardin, *Still Life*

asked to rate them on a seven-point scale for their degree of pleasingness as aesthetic objects. The entire series of slides was shown first with instructions to observe them, and thereafter a second time, during which the actual ratings were recorded.

Five scores were obtained from our art test. The first three represented merely the sum of the ratings assigned the abstract, intermediate, and representational paintings, respectively, and are designated as the *A*, *I*, and *R* scores. In addition, two other scores were evolved: first, a bias score measuring the degree to which abstract paintings were preferred over representational paintings; secondly, an eclectic score measuring the degree to which the subject appeared to prefer all classes of paintings equally well. These were known, respectively, as the *B* and *E* scores.

The independent variables employed in this study consisted of the following personality measures obtained from College records: (a) Allport-Vernon Study of Values; (b) Myers-Briggs Type Indicator; (c) Terman Concept Mastery; and (d) College Board scores. In addition to these, two further measures were obtained on our subjects, namely, class standing at graduation from secondary school, and amount of parental education.

The above variables were used primarily in exploring our first hypothesis, namely that there are personality and background differences between those liking abstract as opposed to representational art. In the case of our second hypothesis, namely that perceptual flexibility and originality should be associated with eclecticism, we employed five tests derived from the work of Guilford *et al.*, consisting of the following: an anagram test, a test of scrambled words, a test of mutilated words, a test of consequences of special conditions, and finally a test of unusual uses for commonplace objects. We shall not describe these in detail since our results were essentially negative.

C. RESULTS

Our dependent variables show an interesting, though largely suggestive body of correlations with the scales of the Allport-Vernon Study of Values. Thus, there is a highly significant correlation of .35 between dislike of representational art and the Aesthetic value, and, as might be expected, a negative correlation of $-.22$ between our Bias score (measuring preference for abstract in contrast to representational art) and the same Allport-Vernon scale. By way of contrast, the correlation between the Religious value and our Bias score stands at .24, while the correlation of this value with the "R" score is $-.22$ and with the "A" score is .21.² It is thus clear that those high in religious value tend to prefer representational art, whereas those high in the aesthetic value tend to prefer abstract art.

The Myers-Briggs Type Indicator yields meaningful results primarily with respect to the Sensation-Intuition dimension. Here we find a significant negative correlation of $-.31$ between preference for representational art and

² .21 = 5 per cent level of significance; .27 = 1 per cent of significance.

disposition to intuitiveness. Our Bias score, combining as it does ratings on both representational and abstract paintings, gives us a positive correlation of .24 between preference for the abstract art and intuitiveness.

In treating our remaining independent variables, we resorted to a somewhat different statistical design. Here we have selected three groups of subjects representing the extremes from three classifications, namely, those most preferring abstract paintings (A), those most preferring representational paintings (R), and those showing the greatest eclecticism of taste (E). The number of subjects in these three groups was, respectively, 14, 20, and 12.

Table 2 presents the mean performance of each of these three groups on

TABLE 2
MEAN SCORES OF COMPARATIVE PERFORMANCES OF THE THREE GROUPS (A, R, E)
ON THE C.E.E.B. VERBAL, MATHEMATICAL, AND ENGLISH COMPOSITION
TESTS AND ON THE TERMAN CONCEPT MASTERY TEST

Groups	CEEB Verbal	CEEB Math.	CEEB Eng. comp.	Terman Concept Mastery Test (out of possible 170)
Abstract	707	704	714	116.00
Representational	660	646	662	99.00
Eclectic	636	643	650	99.30

the C.E.E.B. verbal, mathematical and English composition scores and on the Terman Concept Mastery Test. It will be noted that those preferring abstract paintings are consistently and substantially higher on all of these measures than those of eclectic tendencies or those preferring representational paintings.

Table 3 sets forth the results of an F-test applied to the verbal scores and indicates a clear difference between the three groups.

TABLE 3
ANALYSIS OF VARIANCE OF THE THREE GROUPS (A, R, E) ON THE C.E.E.B. VERBAL TEST

Components	Sum of squares	df	Variance
Between groups	34868.88	2	17434.44
Within groups	132149.00	43	3703.23
Totals	167017.88	45	

Note: $F = 5.67$; $p = .01$.

An F-test comparing the three groups on the C.E.E.B. mathematical means does not attain the five per cent level of significance, but a comparison of our A and R groups considerably exceeds the five per cent level of confidence, as shown in Table 4.

It did not prove possible to demonstrate reliable significance with respect

TABLE 4
ANALYSIS OF VARIANCE OF THE TWO GROUPS (A, R) ON
THE C.E.E.B. MATHEMATICAL TEST

Components	Sum of squares	df	Variance
Between groups	28594.00	1	28594.00
Within groups	173404.00	32	5418.87
Totals	201998.00	33	

Note: $F = 5.28$; $p = .05$.

to the English composition scores, but the differences on the Terman Concept Mastery Test are clearly significant, at least between the A and R groups, as shown by the F-test reported in Table 5.

TABLE 5
ANALYSIS OF VARIANCE OF THE TWO GROUPS (A, R) ON
THE TERMAN CONCEPT MASTERY TEST

Components	Sum of squares	df	Variance
Between groups	2384.25	1	2384.25
Within groups	13866.00	31	477.29
Totals	16250.25	32	

Note: $F = 5.33$; $p = .025$.

Precollegiate and socioeconomic data were obtainable for our three groups of subjects, and in Table 6 we present the average percentile rank of our three groups (taken from top to bottom) upon graduation from preparatory school and also the average amount of parental education, based upon

TABLE 6
MEAN PERCENTILE STANDINGS OF THE THREE GROUPS AT GRADUATION FROM PREPARATORY
SCHOOL AND MEAN PROPORTIONAL AMOUNT OF PARENTAL EDUCATION
(MOTHER AND FATHER COMBINED)

Groups	Mean percentile standing at graduation	Mean proportional amount of parental education
A	6.73	3.93
R	20.31	3.15
E	16.60	2.33

a scale of our devising in which the value of "1" indicated graduation from high school, "2" graduation from college, and "3" attendance at graduate school; these values were summed for both parents. It will be noted that our subjects preferring abstract paintings have a higher mean percentile standing in their precollegiate graduating class. At the same time, they come from homes with a higher educational index than those in our other two groups. Table 7 shows the application of an F-test to the precollegiate

TABLE 7
ANALYSIS OF VARIANCE OF THE THREE GROUPS (A, R, E) ON PERCENTILE STANDING
AT GRADUATION FROM PREPARATORY SCHOOL

Components	Sum of squares	df	Variance
Between groups	1570.10	2	785.05
Within groups	10303.93	43	239.63
Totals	11874.03	45	

Note: $F = 3.28$; $p = .05$.

data on class standing, and confirms that the differences between the three groups exceed the five per cent level of confidence. Table 8 shows the application of an F-test to the data on parental education. Here the differences between the three groups barely fail to attain the five per cent level of confidence.

TABLE 8
ANALYSIS OF VARIANCE OF THE THREE GROUPS (A, R, E) ON MEAN PROPORTIONAL
AMOUNT OF PARENTAL EDUCATION

Components	Sum of squares	df	Variance
Between groups	16.81	2	8.40
Within groups	115.89	43	2.70
Totals	132.70	45	

Note: $F = 3.10$; $.10 > p > .05$.

D. DISCUSSION

We have been able to demonstrate in the foregoing that there appear to be some meaningful relationships between the personality characteristics, abilities, and backgrounds of our subjects and their disposition to prefer abstract or representational paintings. Briefly, preference for abstract paintings seems positively associated with intuitive dispositions, high scores on aesthetic interest, superior verbal and mathematical abilities, a family background of greater intellectual cultivation, and, finally, superior performance at the precollegiate level. Preference for representational paintings, in general, represents the opposite of all these, and is apparently meaningfully associated with high score on Religious, as opposed to Aesthetic, value on the Allport-Vernon Study of Values. It is our clear impression that the differences that we observe here between these two groups are partly cultural and partly temperamental, if it is legitimate to separate these two dimensions. Thus, preference for abstract paintings appears to be associated with qualities of subjectivity and hypersensitivity at the same time that it is found among individuals coming from, in all probability, more cultured backgrounds.

We have not reported here any of the data relating performance on this

test to that on the Minnesota Multiphasic Personality Inventory or the Strong Vocational Inventory, though there are some suggestive data there to indicate that preference for abstract painting is related to general neuroticism and to vocational interest of an introversive character, i.e., musical and literary interests as opposed to managerial and manual callings.

We emerge from this study with the clear conviction that the analysis of aesthetic preference for abstract and representational art modalities is a meaningful and profitable excursion in personality research. On the other hand, it may be that preference in this dimension of choice is more than usually influenced by the cultural traditions from which the individual springs and less by fixed dimensions of temperament and motivation. However, the association of preference for abstract art with a number of measures of intellectual sensitivity, in particular, strikes us as an important and suggestive finding. There seems to be some fairly good evidence, at least within our sample, that devotees of abstract art represent a more talented, sensitive, and symbolically adroit group than those preferring the older, representative tradition of our civilization. Partisans of the abstract principle of modern art should take heart that they appear to have captured the allegiance of many of our more talented youth.

REFERENCE

1. KNAPP, R. H., & GREEN, S. Preferences for styles of abstract art and their personality correlates. *J. Project. Techn.*, 1960, **24**, 396-402.

Psychological Laboratory

Wesleyan University

Middletown, Connecticut

THE FOSTER-PARENT ROLE*

Dearborn, Michigan

GEORGE C. WILLISTON

A. INTRODUCTION

This paper uses the social role concept as developed by social science to analyze a subject of interest to social work. The social role is a way to look at the behavior which is expected of people in a certain status by other members of a social group. In this instance we analyze the expectations of the foster-parent role in relation to others in the foster care situation: child, natural parents or the child's immediate family, and professional representatives of the agency. We analyze only the role as foster parents, and not as natural parents or as any other status.

Usage of the role concept is not new to social work. Mary Treudley (6) in 1944 discussed the ways in which this concept was being used with foster parents, nursery schools, Alcoholics Anonymous and the handicapped, and to minimize discrimination. Treudley (7) later studied the role assigned to dependent persons in this culture and related this to practice. Research with the concept has more recently been illustrated by Beatrice Werble (8) in a booklet designed to discuss social science concepts in relation to social work research. Werble discusses research being done in Pittsburgh using the role concept diagnostically. This work suggests that the role concept "adds to the already established diagnostic principles in family casework," (8, p. 29).

B. THE TWO ROLES

Analysis will be built on the fact that there are actually two roles for the foster parent which have not been thought out by social work. One role is seen by the lay person, and the other is visualized by the professional social worker or the child placing agency. Through analysis we can sort out these roles as visualized by lay and professional persons. It is possible to show in this way that there are definite differences in overall goals and expectations, methods of relating to the child in achieving these goals, and in the resulting satisfactions and rewards. Through this method we are able to show that the roles are not compatible; and that their expectations, methods, and satisfactions are conflicting. We will also show sources of

* Received in the Editorial Office on September 27, 1961.

conflict between the various adults and the child in the foster placement complex as a result of these two roles. Role analysis can bring the complex of human relationships intertwined in the foster situation into focus for study.

The key question which is central to the temporary placement of children in the home of an unrelated adult couple is shown to revolve around whether the child is to be made over in the image of the foster parents.

Through role analysis it will become quite clear that there is a necessity to clarify the temporary parent role so that both the lay and the professional persons have a mutually agreed understanding of what they are doing. Mutual agreement on objectives, goals, and methods is very necessary.

These are some of the changes in foster care which will be seen as necessary as a result of role analysis: (a) The name of the function should be changed to *temporary parenthood* or *temporary home care* to stress the temporary nature and physical care aspects of the professionally enunciated role. (b) Through administrative procedures, temporary parents should become volunteer lay workers or an extension of the professional services of the agency and the community. (c) The satisfactions of temporary parenthood must be consistent with the role of volunteer or semi-professional—not with those of pseudo natural parents. (d) The role concept can be used to diagnose the ills of placement, to study the capacity of adults for this most difficult task, to clarify professional thinking on the subject, and to teach the art of temporary home care to adults. (e) At the very least, foster parents and natural parents should be matched in standards of discipline and physical care (particularly appearance) to reduce the possibility of conflict. Research may show this to mean rough social class matching.

C. OVERALL GOALS OF EACH ROLE

It is important, first, to look at the overall goals and objectives of each of the foster-parent roles.

1. Lay Role

The lay role is a remedial or treatment role with the goal of making the child over (in the image of foster parents). The lay person feels that the child is to be made over either to insure that he not be the same kind of adult his parents are (dependent children) or that he be a different kind of child from one with the tendencies he has already shown (delinquent children), or that he should in any case resemble the foster parents. So many of the dependent children placed through a public agency come from lower or working-class homes. It may seem quite understandable that

middle-class foster parents would want to have a hand in preventing some of the inadequacies which they see—or think they see—in parents of children placed in their home. Here is where social workers must become quite knowledgeable about the conditions under which this objective can be achieved—if it is achievable at all.

2. *Professional Role*

The professional role can be characterized as one of temporary maintenance or temporary home care. The objective is to maintain the child in a physical and emotional condition so that he is able to return to his own home—maintenance with parents, family past, and identity and integrity of parental relationship. This involves a certain quality of emotional support and physical maintenance to sustain all the strengths of relationships to parents, and to maintain the child conflict-free. This also means maintaining and enhancing the image and contact with the child's past, his family, his identity through his family, and the integrity of his relationship to his own parents. This is obviously a short-term goal while the lay role is quite obviously a long-term goal, if it can be achieved at all short of permanent placement. Ideally this role involves the natural parents as much as possible—a transplantation of the natural parents in the home of other adults to keep natural parents as active as they can be.

D. CHILD'S AFFECTIONAL TIE AND IDENTIFICATION WITH PARENTS

This is the core area in the lay and professional role, and the Achilles Heel to relationships among the persons involved in the placement situation. This is the area around which foster parents, child and caseworkers get into a real confusion of tangled relations. People basically understand the importance of the parent to the child. The thinking of the social worker must be very clear on this point in relation to foster placement. It is necessary to understand the technical aspects of affection and identification in building a strong, adequate, mature individual. Social work must be clear on the number of adults a child can successfully identify with as parental figures at one time or in succession. Here is where we need some research to clarify the effect of certain variables: the number of parental figures a child can successfully identify with; the number of placements, time periods, and relationship conditions; and the effect these variables have on the emotional maturity of children.

1. *Lay Role*

The lay role, when the expectation is to change the child, uses a specific means to achieve the goal. It is desirable to get the child to drop the

affectional tie and identification which he has with natural parents. The objective of foster parents is to obliterate the image of natural parents from within the child: to destroy their image as adequate, interested, loving people, and the relationship of parent and child. This is necessary to achieve their objective in remodeling the child. It is necessary to intervene in the very core of the child's life, and completely substitute an affectional tie with themselves and establish themselves as models of identification for the child (1, 2, 4, 9).¹

The magic of "love" may have been oversold to the public for this kind of faith to have developed. Actually it would be necessary to intervene completely in the child's image of and relationship to his parents to accomplish the hope to make over the youngster.

This is a logical extension of the goals of the lay role, and cannot be done in any other way. Most actual situations are obviously not at the ideal model because the role has not been thought out, discussed, and brought into the sunlight where it could be looked at. This role is the route of least conflict for the adults who are foster parents, and the way of most difficulty for natural parents and the child. This goal can only hope to be achieved as a permanent plan, and is illogical from the very beginning. The lay role has permanent goals in a temporary setting. Experience has shown social workers that foster children are most often the first to go when any change takes place in the foster family. The setting is very tenuous and temporary for the child.

It should be apparent how natural parents and other adults fit into this role. Foster parents and natural parents become rivals for the affection and loyalty of the child. Natural parents try to hang onto their relationship with their child. These adults become competitors. Caseworkers, too, can also become competitors, especially if they have had a strong relationship with the child before placement.

The rewards and satisfactions of the lay role are consistent with the goals and expectations. The signs of success come in seeing the parent and child lose interest in each other, in seeing the child's identification break down, and in seeing the child outwardly drop manners, values and appearances he brought with him. Ultimate success involves seeing the child able to relate to foster parents, be affectionate with them, pick up their way of life, beliefs, actions, manners; to take foster parents over as models around whom to order

¹ A major hypothesis from experience in child placement witnesses to the importance of the parent to the child, and the continuing presence of the parent in placement. This is one of the basic hypotheses around which this role concept was developed.

his future life. These are the rewards reserved only for permanent parenthood either natural or adoptive—not temporary care. The prerogative of natural parenthood is not to be usurped by people who cannot guarantee a permanent home situation for the child.

2. *Professional Role*

The temporary home role is to maintain and enhance all the strengths in the relationship between the child and his natural parents. "With the parent, our goal is to help him carry his parental responsibilities, derive satisfaction from his parenthood through placement, yet let his child benefit from living in a foster home" (5). Temporary parents are to support and encourage all the interests of natural parents. In this role temporary parents are to be objective, and emotionally uninvolved so as not to be competitors for the child's allegiance; and able to share with other adults. The natural parents are to function as much as possible and the case worker becomes a co-worker. The child's affection for and identity with his own parents is to be maintained, encouraged, enhanced and strengthened. Satisfaction cannot be looked for as in the lay role, but must come as a result of doing the job well so that the child can return to his own home as soon as possible.

This role as a temporary home is obviously more difficult than the lay role for the adults. It will not meet the usual needs that adults have of children; and explains at least in part why a top-notch foster home is difficult to find. This is why social workers feel that almost any home is better than placing a child. The child-placing agency has to learn how successfully to spell out and sell the professional role to people interested in child care.

E. DISCIPLINE AND LIMITATIONS

1. *Lay Role*

In keeping with the remodeling objectives of this role, discipline becomes, with affection, one of the tools to accomplish the end. The foster parents intend to exact conformity to their own standards. Some foster parents verbalize their hope to "straighten out" children who may have "acted up" in the past.

Here we have to be quite clear on whether this is a realistic objective for a temporary sojourn in someone else's home.

In this role the foster parent must be the sole authority on limits as only he would know his own discipline. What happens to the natural parent when he has to imitate or be consistent with foster-parents' limits to avoid conflict for his child? He obviously gets pushed out as he has no part in

establishing discipline and limits. This immediately brings conflicts into the situation for the child.

2. *Professional Role*

The temporary-physical-care role would ideally seek to carry on those limits, standards, rules and discipline on the same basis as in the child's own home. This would obviously be the ideal to avoid confusion for the child, to keep the parental ties as intact as possible, and to give the parent the maximum responsibility for the child while out of his home. This would ideally mean that someone else serves as actor to carry out the disciplinary role as laid out by the natural parent. This alone would maintain the integrity and authority of the natural parent; and may serve as a key to maintaining his responsibility and contact. Natural parents should serve as guides to exercise their authority directly in the foster home. This would strengthen the relationship of parent, and bolster his image as an adequate person. The weight of agency, legal authority and the community is thus thrown behind the natural parent—rather than the temporary parent. This would serve to strengthen rather than break down the adequacy of the parent. For several reasons this is very difficult: (a) Temporary parenthood would not offer foster parents the exclusive jurisdiction of natural parenthood and that envisioned as the right of foster parents. (b) Standards are likely to be different between the sets of parents—then the question becomes a moral issue of which standard is "right." (c) It seems that many of the natural parents in dependency and delinquency situations are viewed negatively by good middle-class foster parents and many aspects of their behavior including discipline are viewed negatively.

The role has much to recommend it in that it will (a) not give the child conflict—learning and unlearning—with the undermining implication that something is wrong with his parents' ways; and (b) not cause acting out of natural parents because their authority has been usurped—avoid the struggle for power over the child which puts the youngster squarely in the middle.

F. ADEQUATE PHYSICAL CARE

The area of parenthood resolves differences in standards of care—if such differences exist.

1. *Lay Role*

As with *limits*, the foster parents would expect the youngster to observe their own standards as outward signs of inward change. Here is a conflict

for the innocence of the child who sees nothing wrong with the care given by his parents. There may, in fact, be nothing wrong with the care except that the foster parents, often with the court and caseworker, think the standards are wrong—too low— all of which are moral social judgments projected into the situation.

2. Professional Role

Here we would hope that the standards of the natural parents—if they meet the minimum for adequate physical health—be maintained with the child. As with *discipline*, it would be most desirable to have the care of the natural parents projected into another home. This will probably immediately have to be qualified to read “wherever and whenever possible.”

This should mean particularly using the clothing the youngster had in his own home. However, if the clothing differs greatly from that which temporary parents would provide, the temporary parents will undoubtedly not be pleased. Imagine taking a child out in public looking as if he is not dressed up to their standard. Imagine, however, the feeling of the parents who may make the first visit to find the child dressed up in clothes not purchased by the parent. What is the implication? Wasn't he good enough; are his standards too “low”? Such a feeling of loss of worth is supported by the buying power and legal authority of the agency which in effect says “we don't think that you are adequate.” This is visible evidence of his inadequacy as a person—his replacement as the one responsible for his child. How can responsibility or parental adequacy be maintained under these circumstances? If one or the other set of parents is to be hurt pridefully—maybe, it is better that the temporary parents suffer. However, understanding will avoid suffering. What confusion and conflict is raised for the child who is divested of his clothes and his way of life in one stroke!

When anything unusual occurs such as sickness, the natural parents should be asked to be with the child frequently, to maintain as much as possible of the relationship. How many times have we left the parents out when their child is sick or has been involved in an accident? How can this but weaken their relationship to their child?

G. WORK WITH THE CASEWORKER AND THE AGENCY

Legitimate foster parenthood does have to involve contact with a social agency. However, this contact will differ with the way the foster parent, caseworker and agency view the situation.

1. *Lay Role*

Carrying out the objectives and methods of the lay role calls for exclusive jurisdiction over the child. Other adults become unnecessary, extraneous, and actual competitors.

The purpose of contacts with the caseworker has to be clear with either role. Within the lay role, the foster parent can only become a client, or a discussion is had of how well the adult is accomplishing his hope to make over the child—doting on each new victory over the child's image of his parents, or his exterior resemblance to the foster parents.

2. *Professional Role*

The key to this role is the concept of the temporary parent as an extension of the agency—a quasi-professional role in which the temporary parent and the caseworker aid the parent to be as adequate as possible to strengthen himself and his relationship to his child. Much training of lay people is necessary when the objectives of the temporary care role are discussed, and the signs and symptoms of maintaining or remodeling the child are pointed out. Here there is the opportunity for a strong identification with the knowledge and objectives of professional social work, the agency and the community.

Continuous training for temporary parenthood should not be at all unusual. Many agencies give training to lay members. This is the way to insure continuous contact, and to assess the capacity of people to comprehend the purposes of the work the agency expects of them. People who are unwilling to take up the temporary parent role, or have personal needs which are unduly strong, should be ruled out at the beginning. Even those who are willing to try will undoubtedly need the guidance of a skilled caseworker over a long time to gain the requisite awareness of the role which they are playing.

Working as a group will give foster parents a sense of identity with others who are undertaking the same task and strengthen identity with agency and community purposes. Some agencies have taken steps to clarify the conflicts and misunderstandings of foster parenthood through group methods (3).

It is crucial that temporary parents understand intellectually and emotionally the role as envisioned by the agency. This must be on a verbal level so that it can be discussed as the caseworker visits the home after placement. In this way the temporary parent can become a co-worker in achieving the temporary care objectives rather than a client in a casework relationship. Agency sponsored discussion will lend the support of the organization to

this temporary care role so that it is not seen as an aberrant of the social worker. In this way the purpose of interviews becomes clearer than just looking in to see how the children are doing.

H. REWARDS OR GRATIFICATIONS OF ROLES

1. *Lay Role*

The role which expects to make a child over by establishing an affectional tie will find rewards in the degree to which this appears to have been accomplished. Satisfaction involves seeing the child become like the adults and in loving response to the adults. Realistically it seems quite unfair to expect to re-orient the innermost being of a child for these satisfactions, but this is entirely within the scope of the role as pointed out above. Rewards must be found within the relationship to the child, monstrous as the consequences of this may be. Children who cannot identify with the foster parent, change and respond affectionately, are not satisfying to this conception of foster parenthood.

2. *Professional Role*

It is unrealistic to take away personal satisfactions without substituting others which are just as worthwhile. Certainly the goal of preserving the child in a conflict-free situation, in as strong a relationship to his parents as possible, is very noble. The reward will be in achieving this, in seeing this happen, in seeing children return to their own homes to grow up there.

The agency should help temporary parents find satisfactions in this role outside the relationship with the child. They will undoubtedly earn the thanks of more natural parents than is now the case. Some may be challenged by the increased awareness it takes to perform this role. Artistry, ingenuity, imagination, intelligence and self-awareness will be challenged by this service.

The agency may also through the temporary parent group stimulate some social rewards for foster parents performing a community service. Banquets can be held and awards given for excellence in community service. Rewards may take on a community-wide perspective. The agency has a responsibility to sponsor community recognition for temporary parents (3, p. 13) so that they can see satisfactions beyond getting affection from the children.

REFERENCES

1. COLE, L. C. The triangle in child placement: Parent, child, and foster parents. *Soc. Serv. Rev.*, 1951, **25**, 169-180.
2. JOLOWICZ, A. The Hidden Parent. Washington, D.C.: Federal Security Agency, 1946.

3. MEITZER, E. & WANNE, M. Foster parents speak up: Part II. *The Child*, 1953, August, 10-13.
4. NICHOLSON, M. B. Knowledge basic to practice in the children's field. *Child Welfare*, 1950, **30**, 3-8.
5. RADINSKY, E. K. The parent's role in long-time care. *Child Welfare*, 1950, **29**, 8-12.
6. TREUDLEY, M. B. The concept of role in social work. *Amer. Soc. Rev.*, 1944, **9**, 665-670.
7. ———. An analysis of the dependency role in American culture. *Soc. Casework*, 1952, **33**, 203-208.
8. WERNIE, B. The implications of role theory for casework research. In *Social Science Theory and Social Work Research*, L. S. Kogan, Ed. New York: Nat. Assoc. of Soc. Workers, 1959. Pp. 23-31.
9. YOUNG, L. Placement from the child's viewpoint. *Soc. Casework*, 1950, **30**, 250-255.

United Community Services of Metropolitan Detroit
Western Wayne Planning Division
1031 Mason Street
Dearborn, Michigan

FOCUSING ON THE OBJECT OF JUDGMENT IN THE SOCIAL SITUATION*

State University of New York at Albany and Rensselaer Polytechnic Institute

ABRAHAM S. LUCHINS AND EDITH H. LUCHINS

A. INTRODUCTION

About two decades ago one of the writers characterized certain investigations on social influences as "evidence-free" (5, 6). This was because they did not provide "objective evidence" on which the subject could base his judgments. In the course of experimenting with situations in which such evidence was given, the writer has come to believe that his early formulation was too sweeping a characterization. To call a situation "evidence free" may be to neglect the possibility that what is evidence in the eyes of the experimenter may not be evidence in the eyes of the subject, and vice versa. Involved here is the problem of defining the stimulus (2, 3). It may be "evident" to the subject that he should side with or conform with the social forces. The evidence furnished by the social forces may be as real and its requirements even more compelling than those of the assigned object of judgment. It may therefore be misleading to characterize as "evidence-free" a social situation in which an object of judgment is not furnished, e.g., as in Sherif's classical experiments on social norms that utilized the autokinetic phenomenon (13, 14). By the same token, in experiments where social forces are opposed to the assigned object of judgment, it may be unwarranted to conclude that a subject who sides with the social forces against the assigned object of judgment is giving a response that is not based on evidence. Both the object of judgment and the social influence are presented to the subject by the experimenter. The subject may be reacting to social reality which is as objective as the reality of the assigned judgment object. In particular, our experimentation on social influences (6, 9) suggests that one should be wary of the conclusion that the subject who gives correct responses is using evidence but that the subject who gives incorrect responses that are fostered by social influences is not. Our experimentation suggests that such a dichotomy may be an oversimplification; various processes may lead to correct (or to incorrect) responses and a subject may give a correct response for the very reason that another gives an incorrect response. This is not

* Received in the Editorial Office on October 5, 1961.

to deny that certain features of social influences on judgment may be overlooked when there is no "objective evidence" on which to base a judgment or when the object of judgment is "neutral" with regard to decisions that are made about it. Research is needed to attempt to find out what transformations are needed in the experimental situation to bring about correct answers or incorrect answers when the experimenter presents objects for judgment that do (or do not) give the subject the possibility of arriving at definite decisions about them.

It has been found that under certain experimental conditions, through the manipulation of social forces, judgments can sometimes be obtained that are not objectively correct with respect to the assigned object of judgment, but that agree with, conform to, or converge to responses fostered by the social forces. It is tempting to use the findings of such experiments as support for the dicta that to be human is to err and to be social is to imitate. The problem, as we see it, is not to accept these dicta as truisms, as representing characteristics of the human mind, but to seek to understand the conditions that bring about such behavior. In other words, granted that the evidence of social reality sometimes plays a more forceful role than the assigned object of judgment, there still remains the task of ascertaining the conditions, both in the laboratory and in life situations, that maximize or minimize the strength of these two kinds of evidence.

We have sought to utilize a variational approach to this task (8). Our investigations suggest that at the beginning of the experiment the subject usually is focused, in accordance with instructions, on the assigned object of judgment (such as lines, pictures, or descriptions of people) but that the focus may shift due to the experimenter's evaluation of his judgment or due to the judgment other people make in the situation or, in some cases, due to experimentally provided experiences prior to the judgment. Common to all, the subject's attention is made to shift from the original assigned task to a different task. Therefore the subject may no longer be centered on the object of judgment but may be paying attention to other factors which, because of the structure of the experimental situation, have become for him the determining or crucial aspects of the situation. What can be done to foster the likelihood that the subject will focus on the evidence and not be distracted by such extraneous social factors? This is related to the fundamental question of what can be done to make one stick to the facts of the case and not be swayed by factors that are extraneous for the judgment task as originally defined. This question is related to such problems as those of telling the truth and dealing justly with the evidence. Subjects (in our

experiments) have the task of telling the truth in the sense of doing justice to the particular aspects of the situation that they have been instructed to judge. Some do not tell the truth because they have been deflected by the social factor introduced, by the experimenter, in the situation.

Among the stimulus material we have employed was a series of cards each of which contained two line segments. The assigned task to select the shorter of the two line segments. We have experimented with various methods of creating conditions that might make subjects more or less likely to adhere to the assigned evidence and the assigned task. A simple and direct method of accomplishing this would seem to lie in providing subjects with rulers which they use to measure lines. Not only would this offer the subject a definite, precise method of verifying his answers but it might also arouse a host of attitudes related to measuring which might help him to adhere to the assigned task. When he is judging the lines by inspection he may be agreeable to the social pressures. When he is measuring, his activities are associated with an operation in life that is not as subjective as a "judgment." It is generally assumed that people will correctly report their measurements. In fact, in life situations two people may measure and read their measurements to each other in order to check on each other and to reduce error.

It was therefore decided to modify the procedures used in previous investigations (5, 9, 11) by providing each subject with a ruler with which he was to measure the line segments before indicating which was the shorter of the two. In other words, whereas in previous experiments the subject had to base his selection only on observation or inspection, now he had to use the ruler as a gauge. Would false judgments still be obtained? Would the ruler militate against the social pressures that fostered false judgments in previous experiments?

B. PROCEDURE

1. *General Procedure and Subjects*

The material to be judged consisted of five cards (5, p. 97), each of which contained two line segments radiating out of it at different angles. One line segment was one inch long in each card and the other was 15/16, 14/16, 12/16, 10/16, and 8/16 of an inch in Cards 1 through 5, respectively. Subjects were told that they were to receive a test of visual acuity that was part of a new intelligence test being standardized by the psychology department. They were asked to select the shorter line in each card to be given to them and were specifically instructed not to include the sides of

the square as parts of the lines. Unlike the previous experiments with these cards (5, 9, 11), each subject was furnished with a ruler and told to use it to measure and to determine which line segment was the shorter.

Serving as subjects were 165 college students. Of the 15 subjects in each experiment, five were engineering students and the remainder "arts and science" students in introductory psychology classes. Control subjects were tested alone. In the experimental variations the subject overheard one or more individuals make a judgment just before the card was handed to him to judge. The justification given for this order of responding was that the subject had been last to enter the room. The overheard responses were made by pre-instructed college students who were the experimenter's confederates. Three confederates were used in Experiments V and X and one confederate in the other variations. The confederate had also been given a ruler which he ostensibly used to measure the lines, but in all cases he gave pre-determined judgments. In Experiments I through V the confederate always made incorrect choices, i.e., he selected the longer line as being the shorter one. In Experiments VI through X the confederate always gave correct responses. The experimenter evaluated responses in some of the variations, referring to them as right or as wrong. The evaluation was made after the subject responded and before the next card was presented. After the experiment, the experimenter left the room for a few minutes so that the confederate could ask the subject "what it was all about." When the experimenter returned, he asked the confederate or confederates to leave and then gave the subject the five cards to measure. No evaluation of his responses were made in this retrial.

2. *Specific Procedures*

a. *Experiment O (control)*. The cards were given to the subject for measurement and judgment. No confederate was present and no evaluation was made by the experimenter.

b. *Experiment I (incorrect response)*. The confederate consistently gave incorrect choices.

c. *Experiment II (confirmation of incorrect response)*. The incorrect judgment made by the confederate was evaluated as right by the experimenter although it was contrary to the evidence and the assigned task. The subject was called right if he chose the same line as the confederate; otherwise, he was said to be wrong.

d. *Experiment III (confirmation of incorrect response in successive trials)*. First the procedure of Experiment II was used. After the fifth card the

experimenter said that the confederate had obtained 100 per cent on the test, but that the subject had not, and therefore the test would be repeated in order "to see if you too can get 100 per cent on such an easy test." The cards were then readministered to both confederate and subject, the procedure again being that of Experiment II. If the subject did not give the same answer as the confederate in every card, the challenge to obtain 100 per cent was repeated, and the experiment again readministered.

e. Experiment IV (foretraining). Through repeated trials with a preliminary series of cards, prior to the usual five cards, this variation sought to train the subject to agree with the confederate's judgments. The foretraining series consisted of 20 cards (similar in appearance to the usual five) in each of which the two line segments that jutted out of the square were actually equal in length. The preliminary cards were presented, one at a time, to the confederate and then to the naive subject, the announced task being the selection, by measurement, of the shorter line in each card. The experimenter evaluated as right whatever line happened to be chosen by the confederate. The subject was called right if he made the same choice and otherwise he was called wrong. The foretraining series was repeatedly given with the aim of achieving complete compliance. Justification for repetition of the series was that the subject had not attained 100 per cent on the test. The preliminary series was administered for a maximum of four trials, unless the subject previously showed complete agreement with the confederate's answers. Immediately after the last trial with the foretraining series, the usual five cards were given, as if they were part of the same series. The procedure with the usual cards was that of Experiment II.

f. Experiment V (three confederates). One at a time each of three confederates measured and responded to a card before it was given to the subject. Each confederate gave an incorrect response which was called right by the experimenter.

Experiments VI through X were the counterparts of Experiments I through V respectively, with the exception that the confederates consistently gave correct responses, i.e., selected the objectively shorter line in the five cards. The experimenter still evaluated correct responses as wrong and incorrect responses as right. This meant that in Experiments VII through X (where the evaluation was used) the confederate's correct responses were called wrong. In Experiment IX whatever line happened to be selected by the confederate in the foretraining cards was described as wrong by the experimenter.

C. RESULTS

Table 1 presents the percentage of false judgments offered in each experiment as well as the mean for all five cards and the mean for the last four cards. This latter mean, which will be considered in the discussion, is presented because in most variations the experimenter's evaluations could not have influenced responses to the first card. For purposes of comparison the table also contains, for each experimental procedure, the percentages of false judgments obtained with college students when use of a ruler was not allowed. These subjects (with the exception of those tested with three confederates) were students at the same college as the subjects in the experiments with the ruler.

Control group subjects who were tested without a confederate and without evaluations by the experimenter, consistently gave correct responses. This was the case whether or not they used a ruler.

Looking at the last column of Table 1 we see that, on the average, false judgments were less frequent with a ruler than without one. They were only about half as frequent with a ruler as without for the procedures of Experiments III, VIII, IX, and X, and only about one-quarter as frequent in Experiment V. The decreases in Experiments III, IV, V, VIII, IX, and X were 12, 11, 38, 17, 22, and 12 per cent, respectively. In these six variations the means of false judgments were never less than 20 per cent without a ruler (ranging from 23 to 50 per cent), and never reached 20 per cent with a ruler (ranging from 11 to 18 per cent). In Experiments I and II just as few false judgments were obtained with or without a ruler (seven per cent in each case) and in their counterparts, Experiments VI and VII, no false judgments were made for the last four cards either with or without a ruler. In short, the mean for the last four cards shows that with a ruler false judgments were never more frequent and in most variations they were less frequent than in the corresponding experiment without a ruler.

It may be recalled that in each experimental variation with a ruler there were five subjects who were engineering students. It is of interest that every one of these engineering students gave correct judgments throughout. In other words, in all ten experimental variations not one of the total of 50 engineering students gave a false judgment. Possible reasons for this finding will be considered in the discussion section. Also, a larger proportion of the female subjects than of the male subjects gave false judgments and this was the case even when the engineering students (all males) were excluded from consideration.

TABLE 1
PERCENTAGES OF FALSE JUDGMENTS WITH OR WITHOUT A RULER

Experiment	Communication	Procedure	Ss	Cards					Mean of 5	Means of last 4
				1	2	3	4	5		
I	incorrect	no verdict	ruler 15 no ruler 15	7 20	7 13	7 13	7 0	7 0	7 9	7 7
II	incorrect	called right	ruler 15 no ruler 15	7 33	20 7	0 7	0 7	7 7	7 12	7 7
III	incorrect	successive trials; called right	ruler 15 no ruler 15	13 60	13 33	7 20	7 20	7 20	9 31	11 23
IV	incorrect	foretraining; called right	ruler 15 no ruler 15	20 47	20 33	20 27	20 27	13 27	19 32	18 29
V	incorrect	3 confederates called right	ruler 15 no ruler 10	40 100	27 40	7 40	7 60	7 60	18 60	12 50
VI	correct	no verdict	ruler 15 no ruler 10	7 0	0 0	0 0	0 0	0 0	1 0	0 0
VII	correct	called wrong	ruler 15 no ruler 10	13 20	0 0	0 0	0 0	0 0	3 4	0 0
VIII	correct	successive trials; called wrong	ruler 15 no ruler 10	40 60	20 60	13 40	20 20	20 20	23 40	18 35
IX	correct	foretraining; called wrong	ruler 15 no ruler 10	20 60	20 40	13 40	13 20	7 20	15 40	13 35
X	correct	3 confederates called wrong	ruler 15 no ruler 10	13 60	13 60	13 0	13 20	13 20	13 32	13 25

Let us now compare the various experiments with a ruler with one another. Ranking the experiments in the order of increasing frequency of false judgments, we find (still using the mean of the last four responses) that Experiments VI and VII are tied for first place with no false judgments. Their counterparts, Experiments I and II, are tied for second place. Experiment III is in third place; Experiment V is in fourth place; Experiments IX and X are tied for fifth place; and Experiments IV and VIII are tied for sixth place with most false judgments (18 per cent).

With one exception this is similar to the rank order that prevailed in the series of experiments in which a ruler was not used. In both series, corresponding experiments were in first place, in second place, and in third place. It is in the fourth place that a major difference occurred. Whereas Experiment V, where the three confederates' incorrect responses were called right, yielded only 12 per cent false judgments with a ruler, it had yielded 50 per cent without a ruler; whereas it ranked only fourth with a ruler it ranked seventh (last) without a ruler. The remaining experiments had the same rank in the two series or differed by at most one rank.

D. QUALITATIVE DATA

Most subjects' behavior during the experiment indicated that they were surprised to have their responses called wrong. "Impossible," "ridiculous," "either he's crazy or I am" and "he must be blind" were among the comments spontaneously made during the experiment. The most frequent comments were queries to the experimenter asking whether it was the shorter line that he wanted. Some subjects asked, "Am I to be honest?" Another frequent comment was "I know I'll be wrong, but I'll still say what I see," or words to this effect. Some subjects expressed a lack of confidence in themselves, e.g., "I guess I can't see very well" or "My glasses need changing." Some subjects said that the confederate might be better at measuring than they were or that the confederate knew something that they did not know. That some subjects suspected collusion between the experimenter and the confederate is seen in such comments as "You two must be in cahoots" and "There's trickery afoot!" A few referred to optical illusions. Some subjects seemed embarrassed that they were so often called wrong or that they disagreed with the confederate or confederates; in a few cases they even apologized for disagreeing or being contrary. Several subjects jiggled the ruler about in an attempt to get the "right" answer and seemed to be pleased when they were called "right." Although most subjects reacted good-naturedly to the experiment, a few seemed somewhat irritated or distressed by it.

After the experiment, some of the subjects who had never given false responses claimed to have been troubled by the confederate's response or by the experimenter's evaluation or by both. On the other hand, some of the subjects who gave false responses claimed that they had not paid attention to and that they had not been influenced by the confederate or the evaluations. They insisted that they reported what they measured. When pressed for an explanation, some of them said that they might have included parts of the sides of the square in arriving at their answers. Some rationalized their responses, giving the appearance of having arrived at the answer by facing and measuring the evidence.

Some false responses might have stemmed from so-called cognitive factors. But some who gave false judgments seemed to behave more in line with what would be expected on the basis of deductions from a "drive-reduction" theory. Yet, it is important to keep in mind that whether cognitive or non-cognitive factors led to false judgments, these responses were not veridical.

E. DISCUSSION

The largest difference in results between the ruler experiments and their non-ruler counterparts occurred when three confederates (college students) gave incorrect answers that were evaluated as right by the experimenter. Under these conditions, half the responses in the last four cards were false judgments when no ruler was used, whereas less than one-eighth were false when a ruler was used. This finding suggests that the ruler was highly effective in overcoming the force of the "majority" even when it was backed by an "authority" in the form of the experimenter (11). Or to put the matter in other words, when the judgments made by one's peer group (even when endorsed by an "authority") were pitted against a conventional standard or norm of judgment, the latter tended to prevail.

Why was the use of the ruler successful, on the whole, in reducing false judgments and thus weakening the influence of the experimentally introduced social forces? One answer may be that the operation of measuring reduces the private, personal or subjective aspects of the judgment. It constitutes a more demonstrable procedure for arriving at the relative length of the two lines than does ordinary observation. Measuring is a procedure that is more susceptible to external verifiability than mere observation. Moreover, measurement is agreed upon, by convention, to be a standard method on which to base a decision regarding the length of things. The subject therefore had the force of convention to back his technique of demonstrating to others that his choice was correct. Thus, the ruler may have given him greater

confidence and certainty in his judgments. In fact, some of our subjects said, after the experiment, that if they had not had the ruler, they probably would have given the incorrect choice when it was called "right" by the experimenter. They said that the ruler made them confident that they were correct. As one subject expressed it spontaneously, when disagreeing with the three confederates' incorrect responses that were endorsed by the experimenter, "I may be contrary but I'm not contrary to the facts." The ruler apparently gave him confidence that he was getting "at the facts."

It is conjectured that the greater the surety or confidence that subjects have in their methods and/or ability to make a judgment in a given situation, the less likely it is that their judgments will be swayed by social pressures. Supporting this conjecture are the differences in results in experiments with and without a ruler. What also seems to support this conjecture are the differences in results between engineering and non-engineering students in the ruler experiments. (Other factors that may have contributed to this difference will be discussed below.) Moreover, further support for the conjecture is the finding that in the non-ruler experiments, elementary school children gave more false judgments than college students; the children presumably were less experienced in judging lengths and less certain of their judgments. Indirect support for the conjecture comes from the finding that when college subjects were given five pairs of paragraphs that described a person (12) and they had to judge which paragraph described the more extroverted person, they tended to give considerably more false judgments than were obtained in the experiments with lines, with or without a ruler. The subjects (who were not psychology majors) presumably were less certain of their ability to judge extrovertism-introvertism than were similar college subjects of their ability to judge which of two line segments was shorter. Interwoven here is also the factor of greater subjectivism: the judgment of relative extrovertism is in a sense a more subjective, a more personal matter, and somewhat less susceptible to external verifiability than the judgment of relative length of lines. A difficult but important task is to untwine the two factors, the subjectivism of judgment and the surety of judgment, and to investigate how each affects the roles of social forces in judgment situations.

Various factors may have contributed to the difference between the engineering and non-engineering students. The latter, members of an elementary psychology class, received credit toward their grade in this class by serving as subjects. The engineering students were not taking any psychology courses and received no credit for participating in the experiment. Could this

difference have contributed to the difference in results? Perhaps the psychology students had an external motivation (course credit) whereas the engineering students were likely to be more intrinsically motivated. To make a judgment for "pay" may mean a different thing than to be interested in the task per se. Moreover, the psychology students may have thought that they were being tested whereas, as we shall soon see, the engineering students apparently thought that they were testing the test.

The non-engineering students were recruited by a notice on the psychology department's bulletin board. This notice was not circulated among the engineering students. They were recruited by an engineering student who urged them to volunteer, stressing that their services were needed to help the psychology department standardize a test of visual acuity. This may help to explain why the engineering students apparently were more committed to the assigned task than the other subjects. Perhaps the engineering students regarded themselves as "experts" called in by the psychology department. Far more frequently than the psychology students, they volunteered to use their own ruler, compass, calipers, or other instruments "to prove" their answer to the confederate or to the experimenter. Such behavior may be related to the above notion of surety of judgment. Engineering students seemed confident that they could measure correctly. They were ready to pit their measurements, which they were willing to demonstrate and make public, against the other person's statement or the experimenter's evaluation. Relatively more often than the psychology students, the engineering students challenged the experimenter to back up his evaluation by measurement. Some asked the confederate or experimenter to demonstrate how he measured. They wanted to know what instruments the experimenter had used to gauge the relative lengths of the line segments. Some of the engineering students said that they could see how differences in judgments might arise in the first card of the usual series, where the difference between the lines was small, or in the foretraining series (where the two line segments had equal lengths), but they could not understand why one person was always right and the other always wrong. Some indicated that unless the other subject or the experimenter could show them wherein they had measured incorrectly, they were not going to swerve from the assigned task. It seemed to be less a question of who was called right or wrong by the experimenter but more a question of reading the ruler or the measurements. "Is it measurement you want?" they frequently asked the experimenter. Their attitude is well summarized by the engineering student who commented, "I'll pick this line as long as my job is to measure. I could say the opposite and get 100 per

cent but then I wouldn't be answering on the basis of measurement. If it's the longer line you want, please say so. If it's the shorter line, then I am measuring it."

Moreover, perhaps the engineering students were less inclined than the psychology students to consider that a visual illusion or some other psychological phenomenon was involved. To the engineering students what was involved was "measurement" in the ordinary use of the term. Whatever may be the other reasons for the difference in results between the engineering and non-engineering students, the results suggest that susceptibility to social influences may depend on training, interests, attitudes, and individual differences. That sex differences (not necessarily biologically determined) may be a factor is suggested by the finding that female subjects gave relatively more false judgments than did the male subjects.

The situation in our experiments may be interpreted as "illegitimate" use of power or influence by the experimenter. On the one hand, the subject is told to select the shorter of two lines and on the other hand, when he does this, he is called wrong. Ostensibly the subject is involved in a task that calls for observation, measurement, and selection of the shorter line, but actually the experimenter seeks to commit the subject to another task. What would happen if the subject were frankly told at the onset that his task is to reconcile his judgment and the judgment of others or, to put it more honestly, if he were told that we are interested in seeing whether or not he can be induced to change his judgment because of social pressures. Such instructions would reduce the hidden, unilateral commitments in the experimental situation.

To a certain extent subjects in our experiments were faced with the dilemma that faced the courtiers of the legendary emperor who wore no clothes though he thought he was garbed in beautiful raiment. Like the emperor's subjects, our subjects could report what their eyes saw or could say what seemed expedient—or perhaps even necessary—in the structure of the social situation. After all, the emperor might order the beheading of anyone bold enough to suggest that he was parading in the nude. Moreover, to be able to see the clothing was considered, in the court, a sign of intelligence and virtue in the observer. This consequence may have its counterpart in our experiment and in other experiments on social influences (e.g., to be called "right" on the test may be considered an indicant of intelligence) even if nothing as serious as beheading awaits those who adhere to the objective evidence. Freedom of choice or decision is not really enjoyed by subjects in such experiments, even though the restraints they face in them are not as powerful as those faced by the emperor's courtiers. To this extent

the experiments are as much studies of social domination as they are of conformity or suggestibility. The subject has a choice between continuing to focus on the object of judgment or being correct in the eyes of others (the experimenter who is the "authority" and or those whose incorrect responses he overhears). He has a choice between a response that is inadequate in terms of the object of judgment or one that is adequate in terms of the social field. That he gives the latter response may as readily be interpreted to mean that he is dominated as that he is suggestible or conforming.

In short, whether or not the subject uses evidence that is introduced in a situation may be a function of the subject's freedom to take the evidence into account. This in turn may depend on whether or not the individual is dominated, blinded, or desensitized by social or personality factors or specific kinds of past experience, so that he does not take the evidence into account or does not report the truth. Related here is the philosophical conjecture that truth requires freedom. One is not free to report what he sees if his main concern is what other people will think about him or to win approval or avoid disapproval of the authority or the majority of his group.

Related to freedom to speak the truth is the ability or desire to do justice to the particular object under consideration. Leaving aside the philosophical and methodological issues involved in defining "justice" and "the particular object," we think that it may be possible to consider whether an individual who judges an object does justice to it in the sense of adequately meeting its requirements or portraying its characteristics. To consider this, we do not necessarily have to talk about the individual being in "communion" with or having "empathy" for the object of judgment. What, for example, would be meant by a subject having "empathy" for the line segments? Moreover, we can be concerned with doing justice to a particular object even if we grant that an object or experience may derive its meaning and even its characteristics from the situational context in which it occurs. In particular, the task of judging the lines—and perhaps even the lines themselves—may differ in meaning when one focuses on the relative length of the lines as compared to when one focuses on the requirements of the social situation in which the judgments are made. The latter focus may foster (and be fostered by) attitudes and assumptions that are counter to what is required to do justice to the particular assigned object of evidence.

Our experimental situation is a "closed situation" in the sense that whether the subject makes one or another judgment has no consequences outside of the immediate judgment situation. This may have facilitated the efficacy of the social forces in producing false judgments. If the subject could have

envisioned subsequent encounters with the object of judgment where the false judgment would create trouble for him, then he might have been less inclined to accept another's characterization of the object and more inclined to face it in terms of its own particular qualities. In other words, if the judgment situation is a "closed" situation, if the judgments made therein do not affect dealings with the object in subsequent situations, then the subject may be more inclined to accept or to be dominated by social pressures than if he has to face the consequences of his judgment, e.g., subsequently deal with the object on the basis of his false characterization of it. Preliminary studies have been undertaken in attempts to make the experimental situation a "non-closed" one. For example, in an exploratory experiment, children were given two cardboard cutouts of a part of a house (e.g., a door) and asked to select one with certain specified dimensions. Under social pressures some selected the incorrect cutout. After several such tasks they were given a cardboard house which had to be completed by inserting the parts that they had previously selected. Those who chose incorrectly could not complete the house. They were allowed to examine and helped, if necessary, to realize that the rejected parts would have fitted the gaps in the house. When the same children subsequently participated in an experiment on social influences (using lines or pictures) they seemed more wary of and less susceptible to social pressures. Further experimentation is planned along these lines.

In short, experiments such as ours, although usually interpreted in terms of suggestion, conformity, or imitation, seem to be bordering also on the problem of power or domination in interpersonal relations. Subjects who are dominated by social pressures are actually not free to make the decision they are purportedly free to make, because they lack the freedom to pursue the task ostensibly given to them.

REFERENCES

1. CANTRIL, H. *The "Why" of Man's Experience*. New York: Macmillan, 1950.
2. KILPATRICK, F. P., Ed. *Explorations in Transactional Psychology*. New York: New York Univ. Press, 1961.
3. KOFFKA, K. *Principles of Gestalt Psychology*. New York: Harcourt, Brace, 1935.
4. KÖHLER, W. *Mentality of Apes*. London: Kegan Paul, Trench, Trubner, 1925.
5. LUCHINS, A. S. On agreement with another's judgments. *J. Abn. & Soc. Psychol.*, 1945, **39**, 97-111.
6. ———. Social influences on perception of complex drawings. *J. Soc. Psychol.*, 1945, **21**, 257-273.
7. ———. On the description of the stimulus field in social psychology. *Psychol. Rev.*, 1950, **57**, 27-30.

8. ———. A variational approach to phenomena in social psychology. In *Emerging Problems in Social Psychology*, M. Sherif & M. O. Wilson, Eds. Norman, Oklahoma: Univ. Book Exchange, 1957.
9. LUCHINS, A. S., & LUCHINS, E. H. On conforming with true and false communications. *J. Soc. Psychol.*, 1955, **42**, 283-303.
10. ———. *Rigidity of Behavior*. Eugene, Oregon: Univ. Oregon Press, 1959.
11. ———. On conformity with judgments of a majority or an authority. *J. Soc. Psychol.*, 1961, **53**, 303-316.
12. ———. Social influences on judgments of descriptions of people. *J. Soc. Psychol.*, 1963, **60**, 231-249.
13. SHERIF, M., & CANTRIL, H. *The Psychology of Ego Involvements*. New York: Wiley, 1946.
14. SHERIF, M., & SHERIF, C. W. *An Outline of Social Psychology*. New York: Harper, 1956.

Department of Psychology
State University of New York
Albany, New York

AUTHORITARIANISM AND STUDENT REACTION TO AIRPLANE HIJACKING*

Department of Psychology, University of Miami

CARL D. WILLIAMS

A. PROBLEM

This paper reports the successful prediction of attitudes toward an international incident on the basis of scores on the California F scale (1). Some 20 minutes after leaving Miami one morning late in July, 1961, the pilot of a commercial airplane was forced at gunpoint to alter course and fly to Havana, Cuba, with his crew and 32 passengers. News media reported the hijacking and indicated that a fully armed U.S. Air Force plane had intercepted the hijacked plane and had followed it but had turned back as the commercial plane approached Havana. The evening reports of news media in Miami headlined this story and featured a call by Florida's Senator Smathers for U.S. Military forces to be sent into Havana to recover the airplane.

At this point it was predicted that persons favorable to this view would score higher on the California F scale than those unfavorable to it. It was hypothesized that an individual's attitude toward authoritarianism would play an important role in shaping his reaction to the recommendation that military force be used.

B. METHOD AND ANALYSIS

The next day all students taking introductory psychology at the University of Miami summer session filled out the California F scale, following the usual instructions. F-scale form 45 and 40 was used with one change: Item 22 ("It is best to use some prewar authorities in Germany to keep order and prevent chaos") was replaced by item 5 from form 60 ("Any red-blooded American will fight to defend his territory").

After completion of the F scale, the following statement was read to the students: "An American airplane has recently been seized and taken to Cuba. Senator Smathers has said that if he were President Kennedy he would tell Castro that 'if the plane is not released in 24 hours we're coming after it.'" The students were asked to put a yes on their paper if they agreed

* Received in the Editorial Office on October 9, 1961.

or a *no* if they disagreed with this recommendation. The results in Table 1 show that those who agreed with the recommendation had significantly higher scores than those who disagreed.

The distribution of F-scale scores was divided in half. Analysis showed that 77 per cent of the persons who scored in the upper half agreed with

TABLE 1
MEAN F SCORES FOR THE TWO GROUPS

Reaction to recommendation	N	Mean F score	SD
Agree	53	3.82	.77
Disagree	35	3.30	.78
Difference		.52	
<i>t</i>		3.07	
<i>p</i>		< .005 ^a	

^a One-tailed test.

the recommendation whereas only 43 per cent of those who scored in the lower half did so. Chi square analyses of the upper and lower halves separately showed that the group that obtained high F scores agreed significantly with the recommendation (*p* less than .02) while the group that obtained low F scores had no significant preference (*p* less than .50). This shows that, as a group, those low in authoritarianism were approximately equally divided on this issue while those high in authoritarianism readily agreed to the adoption of an aggressive, forceful stand in international affairs.

C. CONCLUSION

The results^a of the present report indicate that attitudes toward international affairs are partially determined by personality characteristics. This finding is quite consistent with earlier studies that have related authoritarian ideology to various political attitudes (2, 3, 4, 5, 6, 7).

REFERENCES

1. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, R. N. *The Authoritarian Personality*. New York: Harper, 1950.
2. GUMP, P. V. Anti-democratic trends and student reaction to President Truman's dismissal of General MacArthur. *J. Soc. Psychol.*, 1953, **38**, 131-135.
3. HANDLON, B., & SQUIER, L. H. Attitudes toward special loyalty oaths at the University of California. *Amer. Psychol.*, 1955, **10**, 121-127.
4. MAHLER, I. Attitudes toward socialized medicine. *J. Soc. Psychol.*, 1953, **38**, 273-282.
5. MILTON, O. Presidential choice and performance on a scale of authoritarianism. *Amer. Psychol.*, 1952, **7**, 597-598.

6. PAUL, I. H. Impressions of personality, authoritarianism, and the *fait-accompl* effect. *J. Abn. & Soc. Psychol.*, 1956, **53**, 338-344.
7. SIMOS, I. Ethnocentrism and attitudes toward the Rosenberg case and the Republic of Korea. *J. Soc. Psychol.*, 1956, **43**, 181-185.

Department of Psychology
University of Miami
Coral Gables 46, Florida

CHANGES IN PARENTAL ATTITUDES AS A FUNCTION OF ANXIETY AND AUTHORITARIANISM*

Marquette University

EDWIN S. ZOLIK AND EUGENE WELSAND²

A. INTRODUCTION

Considerable attention has been given by social psychologists to the factors involved in the persistence and change of attitudes. These factors may be dichotomized into external and internal components of attitudes and attitudinal changes. External components would include such factors as social norms, one-sided versus two-sided arguments; whereas among the internal components would be strength of existing attitudes, degree of familiarity with "attitudinal object," S's degree of ego involvement, and the S's ego-defensiveness.

Frenkel-Brunswik (4) had reported that parents of highly ethnocentric authoritarian children tended to use more harsh and rigid forms of discipline than parents of less authoritarian children. Lyle and Levitt (8) confirmed this finding. The same investigators further reported that high authoritarian children tended to be more punitive when punitiveness could be expressed without fear of retaliation.

That anxiety is conceivably involved in attitudinal changes was supported by Janis (7) inasmuch as Ss having high scores on "test anxiety" were more susceptible to persuasion. The interpretation was that "test anxious" Ss pay more attention to persuasive material and, therefore, are more likely to remember it. The relationship between authoritarianism and manifest anxiety, however, is not clear. Davids (2, 3) in a replication of a previous study reported inconsistent results. The *post hoc* explanation was that in the second study the Ss were trying to make a favorable impression as indicated by significantly lower manifest anxiety and neuroticism scores.

The conception underlying this paper is that change in attitudes is not unidimensional. In this theoretical model an attitude is considered as involving an integration of both an affective and a cognitive component. The

* Received in the Editorial Office on October 31, 1961.

¹ Portions of this paper were presented at the 1960 Annual Convention of the American Psychological Association.

² The authors wish to thank Raymond J. McCall and Marquette University College of Liberal Arts for the support extended in the conductance of this study.

cognitive dimension consists of the beliefs about the attitude-object. The affective dimension is defined as the feeling state aroused by the psychological comprehension of the attitude-object. An attitude change can be accomplished by an alteration of either the cognitive or the affective component under the influence of a motivational state. Thereby an attitude change consists of an interaction among the conative-cognitive-affective dimensions. Related to the conative dimension would be the interplay of personality factors for when attitudes change, they change not only because of exposure to some communication, but also because of their consistency or inconsistency with personality factors.

B. PURPOSE

The purpose of this study was to investigate the relationship of personality factors, such as anxiety and authoritarianism, to changes in child-rearing attitudes. The said changes were induced by participation in a course of Child Psychology.

In this study the authoritarian syndrome was considered to be a personality variable that could be utilized as an ego-defensive process by highly authoritarian Ss. The success of this defensive maneuver would be ascertained by the degree to which it allays anxiety. The failure of this stratagem would be reflected by the amount of anxiety manifested by S. Thus the amount of anxiety evidenced would be a gauge of the stability and success of authoritarian attitudes in coping with environmental demands. In accordance with this formulation only the extremes of both the anxiety and authoritarianism dimensions were systematically examined. Consequently four groups were defined: high authoritarianism—high anxiety; high authoritarianism—low anxiety; low authoritarianism—high anxiety; and, low authoritarianism—low anxiety.

A high degree of authoritarianism coupled with high anxiety would suggest that the defensive process was unsuccessful and unstable. That is, authoritarianism was not adequate for coping with environmental demands. Accordingly, this group would manifest attitude changes to a heightened degree in order to reestablish psychological homeostasis between the affective and the cognitive dimensions.

The combination of high authoritarianism—low anxiety would be a stable defensive process. Attitudinal changes, if manifested, would be related to an alignment with the beliefs of the authority figure. In the context of the present study the professor could be so perceived by S. If, however, changes were evidenced, they would be less than those in the high authoritarianism—

high anxiety group. In this instance it would be suggested that the authoritarian syndrome was functioning appropriately.

No predictions were made for the low authoritarianism—high anxiety group. In this group other defensive processes would be utilized to reduce anxiety. If changes in attitudes were observed, the high degree of anxiety would be sufficient to account for them. As such, these changes lie beyond the scope of this study.

The low authoritarian—low anxiety group was conceptualized to be a relatively normal group from the viewpoint of ego-defensiveness. Minimal attitudinal changes, if any, would demonstrate that the communicated message could be accepted or rejected without the involvement of defensive processes.

On the basis of these formulations it was hypothesized that: (1) participation in a course in Child Psychology would result in significant changes in child-rearing attitudes; and (2) that Ss in the high authoritarian—high anxiety group would exhibit a greater amount of attitudinal change than either (a) the high authoritarian—low anxiety group or (b) the low authoritarian—low anxiety group.

C. METHOD

1. Subjects

Fourteen, white, unmarried, nulliparous college females in a course in Child Psychology constituted the experimental group. Fourteen similar Ss from an Introductory Psychology course comprised the control group. The Ss used their mother's maiden name for purposes of identification. In this manner anonymity could be safeguarded. It was thereby anticipated that Ss would be predisposed to be less distorting in their responses. The male members in the classes were tested along with the females in order not to focus attention on the female members.

2. Procedure

Child-rearing attitudes were measured at the beginning and end of the semester by means of the Parental Attitude Research Instrument (PARI). The difference score between the two administrations was used as the index of attitude change.

The attitudinal changes were quantified by reducing the obtained scores on the 23 PARI scales to the three orthogonal factors identified by Schaefer and Bell (9) with Thurstone's centroid method of factor analysis. These factors were labelled as: (a) Approval of maternal control of the child;

(b) Approval of the expression of hostility; and (c) Approval of positive attitudes toward child-rearing. For purposes of this study, however, only the scores on those scales, which had a factor loading of at least .40 on a given factor, were combined as an index of the factor. Since the number of scales having the requisite loading on a given factor varied among the three factors, the factor scores were transformed into arc sine scores. A threefold classification analysis of variance of the transformed factor scores was, then, completed for each group of Ss.

Anxiety and authoritarianism were measured by the Manifest Anxiety Scale and the California F Scale (Form 40-45) respectively. These scales were administered at the beginning of the semester.

In the experimental group, the high-low authoritarian, and high-low anxiety groups were established by dichotomizing the Ss at the median on the F Scale and Taylor Scale respectively.

D. RESULTS

Statistically significant pre-post attitudinal changes (Table 1) were reflected in the experimental group ($F = 7.654$, $df = 1$ and 26 , $p < .01$). More specifically, significant attitudinal changes (Table 2) were observed on Factor I ($t = 2.75$, $df = 13$, $p < .05$) and on Factor III ($t = -2.36$, $df = 13$, $p < .05$).

The analysis of variance of the difference scores on the PARI in the

TABLE 1
ANALYSIS OF VARIANCE OF PARI SCORES

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Experimental group					
Pre-post (P)	1	2.51	2.51	7.65	< .01
Factors (F)	2	151.17	75.59	230.52	< .001
Subjects (S)	13	36.36	2.80	8.53	< .001
P × F	2	2.13	1.06	3.25	NS
P × S	13	11.53	.89	2.70	< .05
F × S	26	45.71	1.76	5.36	< .001
P × F × S	26	8.52	.33		
Total	83	257.95			
Control group					
Pre-post (P)	1	1.32	1.32	3.83	NS
Factors (F)	2	87.17	43.58	126.48	< .001
Subjects (S)	13	57.78	4.44	12.90	< .001
P × F	2	1.70	.85	2.46	NS
P × S	13	6.93	.53	1.55	NS
F × S	26	60.98	2.34	6.81	< .001
P × F × S	26	8.96	.34		
Total	83	224.84			

control group did not reveal statistically significant attitudinal changes ($F = 3.83$, $df = 1$ and 26 , NS).

Separate t -tests were also completed for intergroup comparisons on each set of factors for each administration. The t tests in this series, however, did not yield statistically significant results.

TABLE 2
AMOUNT OF CHANGE ON PARI FACTORS IN EXPERIMENTAL GROUP
($N = 14$)

Factor	Pre	Mean Post	SD_D	t	p^*
I	176.71	168.07	3.14	2.75	.01
II	49.42	50.07	1.57	-.41	NS
III	62.42	65.50	1.30	-2.96	.025

* One-tailed tests of significance.

On the basis of these results, the hypothesis relative to the induction of attitudinal changes about child-rearing practices by participating in a course in Child Psychology was considered to have been verified. These results are consistent with the position of Hovland (6) with regard to the experimental induction of attitude change and following his recommendations this study attempted to investigate the more complex factors related to the degree of the modifiability of attitudes.

In this connection it has been postulated that such attitudinal changes would have been a function of given personality variables. That is, the magnitude of change would covary with the degree or amount of certain empirically specifiable personality traits. More specifically, it was hypothesized that the greater amount of change would occur in the high authoritarian—high anxious (HH) group than in the high authoritarian—low anxiety (HL) group and the low authoritarian—low anxiety (LL) group. The results (Table 3) sustain this hypothesis. Additional findings revealed that the high authoritarian—low anxiety group had a significantly greater attitude change ($p = .01$) than the low authoritarian—low anxiety group.

TABLE 3
COMPARISON OF ATTITUDE CHANGES BETWEEN GROUPS

Group	M_D	SD	t	p^*
HH vs. HL	13.33	6.34	2.10	.05
HH vs. LL	35.00	7.16	4.88	.005

* One-tailed tests of significance.

HH = High authoritarian—high anxiety group ($N = 4$).

HL = High authoritarian—low anxiety group ($N = 3$).

LL = Low authoritarian—low anxiety group ($N = 4$).

These findings supported the rationale which specifies the influence of personality factors on the degree of attitude change. It did not appear that the interpretation of the results would be altered by the question as to whether the F scale measures authoritarianism or acquiescence. As Gage et al. (5) had indicated: "if acquiescence does represent a kind of conformity—in this case to the 'pressure' of the printed word or of the context in which a plausible statement is presented—then it does represent an aspect of authoritarianism."

TABLE 4
COMPARISON OF CHANGES BETWEEN GROUPS ON PARI FACTORS

Factor	Group	M_D	S_D	t	p^*
I	HH vs. HL	6.75	3.21	2.10	.05
	HH vs. LL	19.08	5.19	3.67	.01
II	HH vs. HL	4.83	2.03	2.37	.05
	HH vs. LL	11.00	2.89	3.80	.01
III	HH vs. HL	1.75	4.24	.41	NS
	HH vs. LL	5.25	2.65	1.98	.05

* One-tailed tests of significance.

HH = High authoritarian—high anxiety group.

HL = High authoritarian—low anxiety group.

LL = Low authoritarian—low anxiety group.

As indicated in Table 4, the high authoritarian—high anxiety (HH) group had significantly greater attitude changes than the high authoritarian—low anxiety (HL) group on Factors I and II. In comparison to the low authoritarian—low anxiety (LL) group, the high authoritarian—high anxiety (HH) group had significantly greater changes on all three PARI factors.

1. Individual Group Changes

The high authoritarian—high anxiety group showed significant attitudinal changes on Factor I: Approval of maternal control; Factor II: Approval of expression of hostility; and Factor III: Approval of positive attitudes toward child-rearing. On Factors I and II there was a decrease, whereas on Factor III there was an increase. Since Factors I and II are concerned with behavior by the mother which is not generally considered to be consistent with present child-rearing practices, the direction of predicted change would involve a decrease, whereas an increase in Factor III would represent a change indicative of a change in the direction of democratic, permissive, equalitarian attitudes.

Significant attitudinal changes only on Factor I were observed for the high authoritarian—low anxiety (HL) group. It might be questioned whether this is a basic attitudinal change that has been incorporated into the person-

TABLE 5
CHANGES ON PARI FACTORS BY GROUPS

Factor	Group	M_D	S_D	t	p^*
I	HH	17.75	2.95	6.01	.01
	HL	11.00	3.64	3.02	.05
	LL	-1.33	4.49	.29	NS
II	HH	4.50	1.71	2.63	.05
	HL	-.33	.33	-1.00	NS
	LL	-6.50	2.60	2.50	.05
III	HH	-4.75	1.90	2.50	.05
	HL	-3.00	3.51	-.85	NS
	LL	.50	1.93	.26	NS

* One-tailed tests of significance.

HH = High authoritarian—high anxiety group.

HL = High authoritarian—low anxiety group.

LL = Low authoritarian—low anxiety group.

ality. Changes on Factor I might logically be complemented by changes on Factor III: Approval of positive attitudes toward child-rearing.

In the low authoritarian—low anxiety group a significant change occurred only on Factor II: Approval of expression of hostility. In contrast to the other groups this group had an increase on Factor II. Inspection of scores indicated that consequent of this change the low authoritarian—low anxiety (LL) group approached the other groups with respect to the approval of the expression of hostility by the mother. It appears that initially these Ss felt that irritation and hostility toward the child should be suppressed. As a result of the course they learned that the expression of negative feelings, within limits, was acceptable and had less negative consequences than feelings which were denied overt expression but which would be manifest covertly.

In addition to the above analyses a series of correlations was completed. Among these was the correlation between the Manifest Anxiety Scale and the F Scale. The obtained r of .16 would testify to the independence of these variables in affecting attitudinal changes as presented in this study.

Other correlations were computed between the F Scale and the difference scores on the three PARI factors. These correlations were not significant. Similar correlations were computed between the Manifest Anxiety Scale and the difference scores on the three PARI factors. These correlations also were not significant.

The overall results indicated that changes in child-rearing attitudes depended not only on the communication of relevant material but also upon personality characteristics which enhanced, facilitated, or impeded the acceptance and incorporation of the attitudes communicated. The influence of these factors is accentuated in that considerable time and opportunity was

made available in conducting the course for group discussion and the exploration of the validity of various methods employed in child-rearing. The content to a large extent was focused on the interaction between socio-environmental factors and the child's endowment in the development of personality. The implications of this study not only would have relevance for attempts in altering public opinion and attitudes in general, but more specifically, would relate to clinical therapeutic work with parents, particularly mothers, who seek assistance—ostensibly for their child.

E. SUMMARY

Attitudinal changes regarding child-rearing attitudes, as measured by the Parental Attitude Research Instrument (PARI), were studied in a group of 14 unmarried, female college students enrolled in a course in Child Psychology. Results confirmed both hypotheses: (a) Changes in child-rearing attitudes were induced by a course in Child Psychology; and (b) the high authoritarian—high anxiety groups of Ss showed greater changes than the high authoritarian—low anxiety Ss or the low authoritarian—low anxiety Ss. Authoritarianism and anxiety were measured by the California F Scale and the Manifest Anxiety Scale respectively. Differences between the groups also were reported in terms of the 3 PARI factors. The implications for the consideration of personality variables in attempts to change attitudes and their influence on the magnitude of changes were indicated.

REFERENCES

1. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, R. N. *The Authoritarian Personality*. New York: Harper Bros., 1950.
2. DAVIDS, A. Some personality and intellectual correlates of intolerance of ambiguity. *J. Abn. & Soc. Psychol.*, 1955, **51**, 415-420.
3. ———. The influence of ego-involvement on relations between authoritarianism and intolerance of ambiguity. *J. Consult. Psychol.*, 1956, **20**, 179-184.
4. FRENKEL-BRUNSWIK, E. Tolerance toward ambiguity as a personality variable. *Amer. Psychol.*, 1948, **3**, 268 (Abstract).
5. GAGE, N. L., LEAVITT, G. S., & STONE, G. C. The psychological meaning of acquiescence set for authoritarianism. *J. Abn. & Soc. Psychol.*, 1957, **55**, 98-103.
6. Hovland, C. I. Reconciling conflicting results derived from experiments and survey studies of attitude change. *Amer. Psychol.*, 1959, **14**, 8-17.
7. JANIS, I. L. Anxiety indices related to susceptibility to persuasion. *J. Abn. & Soc. Psychol.*, 1955, **51**, 663-667.
8. LYLE, W. H., JR., & LEVITT, E. E. Punitiveness, authoritarianism, and parental discipline of grade school children. *J. Abn. & Soc. Psychol.*, 1955, **51**, 42-46.
9. SCHAEFER, E. S., & BELL, R. Q. Parental attitude research instrument (PARI): Normative data. Unpublished manuscript, NIMH, Bethesda, Maryland, 1955.

Department of Psychology

Graduate School

DePaul University

Chicago 4, Illinois

TRENDS IN THE OCCUPATIONS OF CELEBRITIES: A STUDY OF NEWSMAGAZINE PROFILES AND TELEVISION INTERVIEWS*

Columbia University

CHARLES WINICK

A. PURPOSE

The hero or "great man" in our culture has been given considerable scholarly attention (12). Hero worship as a collective process for the honoring of certain persons as group symbols has been discussed as one way in which characteristic American values are expressed (6). The procedures by which popular heroes are created have been the subject of scholarly as well as popular interest (1, 3, 4). Recent discussion has called attention to the celebrity as a new type of modern hero (8). There is reason to suspect that the celebrity serves many functions for his public (2). The public's interest in celebrities is seen in its constant interest in what they are "really like" (11).

The public may be interested in knowing what a celebrity is "really like" not only in order to confirm its impression of his admirable qualities but also to establish his less admirable qualities. A celebrity may not only be the object of adulation; he may also be the object of hate, or of ambivalence. Different publics may have different perceptions of the same celebrity, and there may be important regional or socioeconomic variations in how the celebrity is regarded.

The celebrity is so uniquely a function of the availability of modern mass media that an examination of the occupations of celebrities who are recognized as such by the media should offer clear indications of the occupations of those who are especially likely to be celebrated. In a study of the vocational distribution of the heroes of biographies in the *Saturday Evening Post* and *Collier's* from 1901 to 1941, it was found that the turn of the century biographies in these magazines emphasized political figures, while the more recent ones were more likely to be of entertainment personalities (7). At the century's beginning the entertainment personalities were likely to be "serious" artists, whereas more popular artists predominated in later years.

* Received in the Editorial Office on October 23, 1961.

B. PROCEDURE

The great growth over the last few decades in what can be called the celebrity system, coupled with the development of new media like television and the growing importance of the newsmagazine, appeared to make it useful to examine the distribution of the occupations of the celebrities treated in two media: the newsmagazine cover story and the television visit to the home of a celebrity. The media selected were the weekly newsmagazine *Time* and the television program "Person to Person." They differ not only in the medium used to communicate, but also in the degree of cooperation required from their subjects. A magazine can write a story about anyone without his cooperation but a television camera can hardly be moved into a celebrity's home without his consent.

Time currently has a circulation of 2,450,000 and a readership estimated to be 10,100,000.¹ In every issue since its first, of March 3, 1923, which had a story on Speaker of the House Joseph G. Cannon, it has had a special feature about the person, persons, animal or object, shown on the cover of the magazine. Such a cover story is usually based on some current news event. It typically requires considerable background research and it is likely to be relatively searching, lengthy, and well illustrated. To be the object of such a biographical cover story has come to be one of the signs of being a major celebrity. There has even developed a mythology about the effects of *Time* cover stories on sports figures: there is a legend that a sports figure who is the the subject of such a cover will be "jinxed" soon after the cover appears. This "jinx" legend probably derives from the aura of success which surrounds the subjects of the cover stories, so that the public is especially aware of a sports figure's failures after he is a cover subject.

The television program "Person to Person" was started on October 2, 1953, with Edward R. Murrow, the host of the program up to recently, interviewing Roy Campanella and Leopold Stokowski. It is a half-hour long and is seen on Friday evenings. The program consists of interviews with celebrities in their own homes. There are generally two different celebrities on each program. They typically discuss their career, introduce their family, and show the interviewer around their homes. The program has generally had a sizeable audience, estimated to have averaged 24,000,000 viewers over its stay on the air.² It is a sign that a celebrity has "arrived" when he appears on "Person to Person."

¹ Readership is estimated from a 1960 survey by the Alfred Politz Company. A foreign circulation of 600,000 is believed to provide another 2,500,000 readers.

² Since 1960, the program has been seen in reruns of previous interviews. As of 1960, it averaged audiences of approximately 7,000,000 households. An average television household is usually regarded as having between 2 and 2.1 viewers.

One function of the exposure of the celebrity on a television interview or a newsmagazine profile is to keep his name before the public and thus maintain his standing in the world of interchangeable currency of reputation which is the celebrity system. *Time* in the newsmagazine field, and "Person to Person" on television, offer the only continuing series of profiles of national celebrities over an extended period. The analysis by occupation of the persons who figure in *Time* cover stories and on "Person to Person" should thus provide clear indications of the kinds of vocation likely to be associated with great fame in America. It should also clarify whether celebrities interviewed on television are likely to have occupations different from those profiled in a newsmagazine. The analysis could also point up the extent to which the magazine's cover stories over almost four decades have mirrored the changes in American life during this period.

The names of all the persons who have appeared on the magazine's covers and the television program through 1959 were collected. Twenty-two occupational categories of celebrities were established on the basis of a preliminary analysis of the celebrities' occupations. The name of each person who had appeared on the magazine covers and the television program was placed in one of the occupational categories. There was practically no ambiguity about the category most appropriate for each celebrity. The differences in social climate of the four decades made a separate analysis of the magazine covers for each decade seem logical. The 1920's were the decade of prosperity, the 1930's were dominated by the depression, the 1940's by World War II and its aftermath, and the 1950's were characterized by America's new role in world affairs and prosperity.

C. RESULTS

1. Incidence

The analysis of the occupation of the personalities who have appeared on the magazine cover, by decade, and of those who have appeared on the television program, are shown in Table 1.

Inasmuch as the magazine covers of the 1950's cover roughly the same period as the television program, it is possible to compare the extent to which the two media have chosen from among the celebrities of the decade. There are about as many actors appearing on the television program as there are American officials and politicians on the magazine cover; these are the most heavily represented occupations in each medium. The television program emphasizes entertainment personalities, while the magazine stresses persons active in national and international affairs. Both media accord

TABLE 1
PROPORTION OF PERSONALITIES BY OCCUPATION ON "PERSON TO PERSON"
AND *Time* MAGAZINE COVERS IN PER CENT

Occupation	"Person to Person"	Time cover subjects by decade			
		1950's	1940's	1930's	1920's
Acting	25.6	4.3	4.8	4.6	2.3
U.S. govt. and politics	7.6	25.5	16.1	26.2	24.0
Foreign govt. and politics	2.6	21.5	22.3	23.7	22.0
Writing	10.2	3.1	2.8	6.4	6.6
Singing	9.5	1.4	1.4	1.5	0.9
Comedy	7.4	.5	.8	.2	.3
Sport	6.0	5.3	3.4	7.3	7.4
Music	5.4	1.1	2.4	2.1	2.3
Art, photography, industrial design					
architecture	3.7	1.8	1.6	2.1	1.1
Entertainment	3.7	1.4	1.2	2.3	3.1
Television personality	3.2	3.3			
U.S. military	3.2	5.8	14.7	.4	2.9
Foreign military	0	1.4	12.9	1.0	2.3
Business	2.8	10.6	6.0	5.8	11.1
Education	2.1	2.2	.8	3.7	2.0
Dance	1.9	.2	.2		
Fashion	1.8	.5	.6	.2	.3
Society	1.4	.4	.6		
Religion	.9	3.1	2.6	2.7	2.9
Medicine and science	.4	4.2	2.4	2.5	3.1
Labor	.4	1.3	2.4	4.8	3.7
Other	.2	1.1	.2	2.5	1.1
Total	100.0	100.0	100.2 ^b	100.0	100.0
	(N = 569)	(N = 553) ^a	(N = 503)	(N = 481)	(N = 350)

^a The number of people profiled by the magazine varies from decade to decade because covers include animals, machines, objects, and several persons on the same cover. In the case of the few people who appeared more than once, each cover appearance was counted separately. Non-human cover subjects were not counted.

^b Total is more than 100 per cent because of rounding off to one decimal.

approximately equal prominence to occupations like sport, education, and television personalities.

The different decades during which the magazine has been selecting subjects for cover stories have seen prosperity, depression, war, and other social change. Thus, World War II was doubtless responsible for the 1940's spurt in the representation of military leaders and in the decline in business and sport representatives. The depression in the 1930's is probably responsible for the decade's decline in business celebrities.

Practically no new occupation appeared during the four decades studied; one of the very few which did is that of industrial designer. The television

personality who is not himself a performer in any of the standard formats is, of course, indigenous to the period since 1948. The declining proportion of society leaders over the decades reflects the general decline of this group's importance in American life. In the "writing" category, there has been a decline in the number of newspapermen and an increase in the number of novelists. Neither labor nor the learned professions seem to be heavily represented. The traditional "back of the book" newsmagazine departments like the arts and religion do not figure very prominently in the proportion of celebrities who warrant a magazine cover; activists like politicians are more likely to be chronicled.

The comparative incidence of the occupations of celebrities in the two media can be compared with the general public's attitudes toward the 90 occupations listed in a poll of a national sample conducted in 1947 (9). About a third of the occupations on our list of 22—for example, acting—are not represented at all on the 90 occupations listed by NORC, suggesting that marginal or unusual occupations are sometimes associated with celebrityhood. In the public's evaluation of the "general standing" of the various occupations, government officials ranked highest, followed by professional and semi-professional workers. College professors ranked fifth, government scientists sixth, and ministers and architects were in seventh and eighth places respectively, out of the 90 occupations, although these occupations have only minor representation among the magazine covers and television interview subjects. How the public views one kind of entertainment personality, who may become a celebrity, can be inferred from the tied (and relatively low) ranking of "singer in a night club" with "filling station attendant." The high ranking which the NORC study afforded government officials is the clearest overlap between the public's perception of the status of various occupations and the representation of these occupations in the two media.

2. Sex

A further analysis of the magazine covers and television programs was made in terms of the sex of their subjects. The results are shown in Table 2.

3. Sex of Television Interviewees

It is obvious that women celebrities are more likely to appear on the television program than in the magazine, either by themselves or as half of a well-known couple. This is a direct reflection of the very high proportion of entertainment personalities on the program. There are many actresses and women singers, as is shown in the detailed analysis of the occupation of persons appearing on the television program in Table 3.

TABLE 2
DISTRIBUTION OF CELEBRITIES PROFILED ON "PERSON TO PERSON" AND *Time*,
BY SEX, IN PER CENT

Sex	"Person to Person"	1950's	<i>Time</i> cover subjects by decade 1940's	1930's	1920's
Male	64.	93.	90.3	90.5	93.1
Female	28.8	6.6	8.7	8.7	6.
Couples ^a	7.2	.4	1.	.8	.9

^a The category "couple" was used only where the duo are both well-known. Thus, Alfred Lunt and Lynn Fontane would be a couple.

TABLE 3
OCCUPATION OF CELEBRITIES INTERVIEWED ON "PERSON TO PERSON,"
BY OCCUPATION AND SEX, IN PER CENT

Occupation	Male	Female	Couples
Acting	9.7	11.4	4.6
Government and politics	8.8	1.4	
Writing	6.9	3.3	
Singing	2.6	6.7	.2
Comedy	6.5	.7	.2
Sport	5.3	.7	
Music	5.3		.2
Art, photography, design, architecture	3.3	.4	
Entertainment	3.7		
Television	2.3	.2	.7
Military	3.2		
Business	2.1	.2	.5
Education	1.8	.4	
Dance	.2	1.2	.5
Fashion	.4	1.4	
Society	.4	.7	.4
Religion	.9		
Medicine and science	.4		
Labor	.4		
Other	.2	.2	
Total	64.0	28.8	7.2

4. Rank Order of Incidence of Occupation

In order to permit correlational analysis of the data, the occupations were ranked separately for the television program and within each of the four decades of the magazine, in order of frequency. In order to facilitate comparability over the decades, the category "Television Personality" of the 1940's and 1950's was incorporated into "Entertainment" in the listing of *Time* cover occupations. The rankings are shown in Table 4.

TABLE 4
RANK ORDER OF INCIDENCE OF OCCUPATIONS OF CELEBRITIES
ON "PERSON TO PERSON" AND *Time*

	"Person to Person"	1950's	<i>Time</i> cover 1940's	subjects 1930's	1920's
Acting	1	7	6	7	12
U.S. government and politics	4	1	2	1	1
Foreign government and politics	13	2	1	2	2
Writing	2	9.5	8	4	5
Singing	3	13.5	14	15	17
Comedy	5	18.5	16.5	18.5	19.5
Sport	6	5	7	3	4
Music	7	16.5	11	13.5	12
Art, photography, design, architecture	8.5	12	13	13.5	15.5
Entertainment	8.5	6	15	12	7.5
Television	10.5				
U.S. military	10.5	4	3	17	9.5
Foreign military	22	13.5	4	16	12
Business	12	3	5	5	3
Education	14	11	16.5	9	14
Dance	15	21	20.5	20.5	21
Fashion	16	18.5	18.5	18.5	19.5
Society	17	20	18.5	9	9.5
Religion	18	9.5	9	10.5	7.5
Medical and science	19.5	8	11	6	6
Labor	19.5	15	11	10.5	15.5
Other	21	16.5	20.5	20.5	18

5. *Correlation and Variance Between Two Media and Among the Four Decades of Magazine Covers*

In order to provide a measure of the comparative importance of each occupation as seen by each medium, the coefficient of concordance was computed between the magazine covers for the 1950's and the television program (5).

Comparison of the rankings of the occupations presented on the magazine covers of the 1950's and the television program yielded a W of .638. Snedecor's F , in order to be significant for these data at the one and five per cent level, would have to be above 2.94 and 2.12, respectively. Since F is 1.76, it is not significant. The difference between the ranks of the occupations in the two media are thus not significantly different.

As a further check on the difference between the occupational distribution of celebrities in the two media, an analysis of variance was conducted on the actual frequency counts of each occupation. The analysis was conducted

of the occupations represented by the magazine covers during the 1950's and the television interviews, to establish whether there was any significant variance in the occupations between and within the samples. The results of the analysis of variance are shown in Table 5.

TABLE 5
ANALYSIS OF VARIANCE OF INCIDENCE OF OCCUPATIONS OF CELEBRITIES
PROFIED BY "PERSON TO PERSON" AND *Time* IN THE 1950's

Source of variation	Sum of squares	Degrees of freedom	Variance estimate
Between samples	.0704	1	.0704
Within samples	48933.07	42	1165.07
Totals	48933.1404	43	

In this analysis of variance, Snedecor's F is .000001. The distribution of the occupation of the celebrities presented in the two media do not differ significantly. In view of the difference in the news events of the past four decades, which might be expected to develop celebrities with different occupations, an analysis of variance was made of the frequency of the distribution of the 22 occupations in each of the four decades during which the magazine was published. The results of this analysis of variance are shown in Table 6.

TABLE 6
ANALYSIS OF VARIANCE OF INCIDENCE OF OCCUPATIONS OF CELEBRITIES
OF CELEBRITIES PROFIED BY *Time* OVER FOUR DECADES

Source of variation	Sum of squares	Degrees of freedom	Variance estimate
Between samples	1060.29	3	353.43
Within samples	72556.70	80	906.96
Total	73616.99	83	

In this analysis of variance, Snedecor's F is .014. The variance in the frequency distribution of occupations among the four decades is not significant. Thus, there do not appear to be significant differences in the occupational differences of celebrities appearing in the magazine cover stories over the decades.

D. SUMMARY

Although each of the four decades seemed to provide a separate and logical category of analysis, the ranking or incidence of occupations among the four decades did not prove to be significantly different. The difference in incidence of occupations between the television program and the magazine covers covering the same period was also not significant. These findings suggested

the possibility that the decade may have been too long a period for analysis and that a five-year period might be more appropriate. The coefficient of concordance and analysis of variance were recomputed, comparing the first half of each decade with the second half, in the case of each of the four decades since the 1920's, in the case of *Time*. In the case of "Person to Person," the celebrities who appeared on the program from 1953 through 1956 were compared with those who appeared from 1957 through 1959. This comparison of half of one decade against the other half did not yield any significant differences in any of the four decades during which *Time* covers were studied or in the period during which "Person to Person" has been on the air.

Thus, taking either the decade or the half decade as a unit of measurement, there would appear to be considerable stability in the occupations of persons featured on newsmagazine cover stories and a major television interview program. It is possible to speculate that the relative stability of occupation of the celebrities treated by these two media may be related to some underlying characteristics which the celebrities have in common, and the public's perception of which is reinforced by the profile or interview. Since neither the magazine nor the program follows any preestablished quota of celebrities from the various occupations, and the external events of the periods studied appear to be at least somewhat dissimilar, the relative recurrence of the same occupations of celebrities in these two media over a considerable period of time raises some questions about the celebrity system. One such question is whether the occupations in which a celebrity distinguishes himself is a realistic method of describing him after he has achieved celebrityhood. It is possible that to be a celebrity is itself an occupation.

If we accept the findings of recent psychological and sociological research on the prestige of occupations, three dimensions of occupational prestige are responsibility for others, training and skill, and personal autonomy (10). The celebrity, who has an extraordinary amount of prestige, almost transcends these dimensions by celebrityhood. He has a great amount of autonomy, it is taken for granted that he has training and skill, and he is expected to be concerned about and responsible for others, as in his sponsorship of charities and other socially ameliorative activities.

Only a continuing scrutiny of whether the occupations which will characterize the celebrities of the next several decades will be substantially the same as those which characterize the celebrities of the decades studied, will enable us to tell whether the stability of celebrities' occupations will be sustained.

REFERENCES

1. BERCOVICI, R. *For Immediate Release*. New York: Sheridan House, 1937.
2. GREGORY, H. Dempsey, Dempsey. In Hicks, G. (Ed.), *Proletarian Literature in the United States*. New York: International, 1935. Pp. 161-162.
3. HARRIS, T. The building of popular images: Grace Kelly & Marilyn Monroe. *Studies in Public Communication*, 1957, 1, 45-48.
4. HARRISON, C. Y. *Nobody's Fool*. New York: Holt, 1948.
5. KANDELL, M. S., & BUCKLAND, W. K. *Dictionary of Statistical Terms*. New York: Hafner, 1957.
6. KELLEY, S. *Professional Public Relations and Political Power*. Baltimore: Johns Hopkins Press, 1956.
7. LOWENTHAL, L. Biographies in popular magazines. In Lazarsfeld, P. F., & Stanton, F. (Eds.), *Radio Research 1942-43*. New York: Duell, Sloan, & Pearce, 1943. Pp. 507-520.
8. MILLS, C. W. *The Power Elite*. New York: Oxford, 1956. Pp. 71-93.
9. NATIONAL OPINION RESEARCH CENTER. Jobs and occupations: A popular evaluation. *Opinion News*, 1947, 9, 3-13.
10. SIMPSON, R. L., & SIMPSON, I. H. Correlates and estimation of occupational prestige. *Amer. J. Sociol.*, 1960, 66, 135-140.
11. THURBER, J. The greatest man in the world. In Maugham, W. S. (Ed.), *Introduction to Modern English and American Literature*. New York: New Home Library, 1943. Pp. 390-396.
12. WECTER, D. *The Hero in America*. New York: Scribner, 1941.

Columbia University

New York 27, New York

CHANGE OF ATTITUDES AS A FUNCTION OF SOME PERSONALITY FACTORS*

Department of Psychology, Utkal University, Bhubaneswar, India

R. RATH AND S. K. MISRA

A. INTRODUCTION

Experimental evidences show that some people yield readily to group pressure and some do not. There may be personality differences between those who conform to a group norm and those who do not. This was suggested by Asch (1, p. 141) who offered several case studies to show the difference in the behavior and personality traits among the ready yielders and the reluctant conformers. Gorden (6) also provided several brief word sketches of persons who were guided by the group norm as compared to those who were not. Crutchfield's (2) experiments explored the possibility of finding out the difference in personality traits between the ready and slow yielders to group needs. Dexter (3) examined some introverted, self-sufficient, dominant women students and suggested that because of these personality traits, these women accepted more readily such beliefs and attitudes which departed from the accepted group norms and therefore tended to develop radical beliefs and attitudes.

The more rigid a personality, the greater is the likelihood of putting up a resistance to change. Rigidity is a difficult concept to be defined in a way acceptable to all. It has been used to describe behaviours characterised by the inability to change habits, sets, attitudes etc. Lewinian theory links the existence of rigidity to the presence of strong boundaries among mental functions. According to Newcomb (8, p. 398), the more desperate one is, the more effort one must make to act in a particular way in order to be sure of warding off the overpowering threat. The rigid person may not change his attitude readily because the change tends to create a sense of insecurity which usually gives rise to terrible conflicts and tension.

Nonconformity to social norm and standard may be a measure of an abnormal mental function. Eysenck (4, p. 217) writes, "It appears likely, therefore, that 'lack of conformity' may in some measure be related to temperamental or characteriological features of the personality. . . . A comparison between hospitalised neurotics and a normal, non-hospitalised group,

* Received in the Editorial Office on October 24, 1961.

and gives support to the view that "lack of consistency" as measured by the test is an index of neuroticism." Wiener (14) refers rigidity as lack of variability and adaptability. His paper is an interesting which indicates that rigidity is a characteristic trait particularly characteristic of the subnormal mind." The current trend in psychology insists that neuroticism is the product of maladjustment arising from interpersonal relationships. A normal person adapts to the needs and demands of the situation more easily than an abnormal person because in the latter case the ego adjustment and the corresponding mental mechanism are threatened as a result of which conflicts and tensions are generated. Thus perhaps, a neurotic cannot change his attitudes so readily as a normal person can.

Goldfarb suggested that lack of plasticity was an important factor in the difficulty displayed by feeble-minded persons in their adjustment to the complex environment of the present civilization. Honkavaara (7) has emphasized rigidity as a fundamental personality trait of the feeble-minded. A biological definition of intelligence is that the more one is adaptable to the environment, the more intelligent he is. If this definition holds good, not to conform to the majority as the group situation demands, perhaps will indicate lack of intelligence.

Vetter (13) found his radical students to be more submissive and introverted. The more one is exposed to social situations, the greater is the probability that he will modify his opinions and attitudes according to the group norm. This readily suggests that an extravert can change his opinions and attitudes more easily than an introvert.

B. PROBLEM

The purpose of the present study is to verify the following two propositions:

1. It is likely that the more extreme attitudes one holds the less he will be affected by group discussion. In other words the more extreme attitudes one holds the more he will resist change as demanded by the group after group discussion.
2. Personality factors like intelligence, neuroticism, rigidity and extraversion are likely to affect the change of attitudes of group members after group decision in different manner.

C. METHOD

1. Sample

A Sample of 105 Ss, 90 boys and 15 girls, was drawn from the undergraduate classes of the department of psychology. They were arranged in

groups of 11, 7 and 3 members in order to study the effect of group size (9). Five of each of such groups were taken into consideration.

2. Materials

a. Attitude questionnaire. This questionnaire consisted of five social and five political issues. The test-retest reliability of the six items selected for the final test was highly significant, ranging from 0.60 to 0.73.

b. Raven's test. Raven's Progressive Matrices test (1938) was used to determine the intelligence of the subjects. Test-retest reliability of this test was in the order of 0.91, which was highly significant (Table 1).

c. Rigidity questionnaire. The questionnaire adopted by Soueif (12) was used to test the rigidity of the Ss. Split-half reliability of this questionnaire was 0.85 (Table 1), whereas Soueif found it to be 0.92.

d. Extraversion-introversion questionnaire. The neuroticism and extraversion-introversion questionnaire of Eysenck (5) was used to measure the traits of neuroticism and extraversion of Ss. The test-retest reliability of this questionnaire in Oriya version was found to be 0.76 (Table 1).

All the relevant data regarding the materials used are presented in Table 1 & Table 2.

TABLE 1
RELIABILITY OF PERSONALITY TESTS APPLIED

	<i>r</i>	<i>Z'</i>	<i>N</i>	<i>P</i>
Test-retest reliability of Progressive Matrices .....	.91	1.53	100	.001
Split-half reliability of rigidity questionnaire .....	.85	1.27	150	.001
Split-half reliability of neuroticism and extraversion-introversion questionnaire in Oriya version .....	.76	1.00	88	.001

TABLE 2
MEAN, *SD* OF PERSONALITY TESTS APPLIED

	Mean	<i>SD</i>	<i>N</i>
Progressive Matrices	41.11	7.24	124
Neuroticism	11.11	5.48	174
Extraversion	13.29	3.24	174
Rigidity	26.67	12.66	120

3. Procedure

An attitude questionnaire consisting of 10 items (five social and five political issues) was administered on 200 Ss of the undergraduate student population. Ss were asked to check the items on a five-point scale. On the basis of test-retest reliability, six items (three social and three political issues) were selected for the final test (9). The actual test was conducted on

105 Ss selected from the total sample of 200 Ss. These 105 Ss were divided into groups of three categories, each category consisting of 3, 7 or 11 members. Five groups from each of these categories were taken. Within the 7th and 10th day of the administration of the attitude questionnaire, group discussions were carried out for six minutes on each item and an attempt was made to arrive at a group decision in each case. After group decision the group members were asked to check the item on the same five-point scale. Care was taken so that each member got an equal opportunity to take part in the discussion. A sitting arrangement was made so that the good contributors sat in front of poor contributors and they in turn sat side by side. This technique was followed after Steinzor (11) to control participation of group members in group discussion. Soueif's (12) rigidity questionnaire, Raven's Progressive Matrices (10), Eysenck's (5) neuroticism and extraversion-introversion questionnaire were applied on each subject.

D. RESULT AND DISCUSSION

The deviation of the strength of the attitude of a group member on an item from the group decision arrived at after a group discussion was calculated. When the deviations on all the six items were added the addition was called the total test deviation. So also, the deviation of the strength of the attitude of a group member on an item before group discussion was calculated. When such deviations on all the six items were added the addition was called the total pretest deviation.

Before correlating the extreme attitude (one or five) of an individual on all the six items in the first application of the attitude questionnaire with his total test deviation, an analysis of variance is necessary to show that the total test deviations under each size are drawn from the same population. The results of analysis of variance as presented in Table 3 show that the total test deviations under each size do not differ significantly.

The coefficient of correlation between the extreme attitudes and the total test deviation was $-.10$ ($df = 103$), which could not reach the significance level. In other words it means that there is no relationship between the

TABLE 3
ANALYSIS OF VARIANCE OF THE TOTAL TEST DEVIATIONS UNDER THE 3 GROUP SIZES

Sources	Sum of squares	<i>df</i>	<i>msw</i>	<i>F</i>	<i>P</i>
Between sizes	39.44	2	19.72	2.82	ns
Within sizes	712.52	102	6.98		
Total	751.96	104			

extreme attitudes one holds and his deviation from the group norm established after the group discussion. The results do not give support to the first proposition. However, there is a positive and significant relationship ($P < .05$) between total pre-test deviation and total test deviation ($r = .25$, $df = 103$). This seems to indicate that the more divergent opinions one holds before group discussion the more he deviates from the group norm after group discussion. In other words the more away one is from the group standard the less he will change his attitude towards the group norm after the group discussion. Table 4 presents all the results about inter-correlations among the personality traits and test deviations.

TABLE 4
SUMMARY OF THE RELATIONSHIPS OBSERVED

	<i>r</i>	<i>df</i>	<i>P</i>
Extreme attitudes vs. total test deviation	— .10	103	ns
Total pre-test deviations vs. total test deviation .....	.25	103	.05
Rigidity vs. total test deviation	— .10	90	ns
Extreme attitudes vs. rigidity .....	.31	103	.001
Intelligence vs. total test deviation	— .28	82	.05
Neuroticism vs. total test deviation .....	.22	85	.05
Extraversion vs. total test deviation	— .10	84	ns

The second proposition is to show the functional relationship between personality traits and change of attitudes towards the group norm established after the group discussion. The coefficient of correlation between rigidity and total test deviation was $-.10$ ($df = 90$) which could not reach the level of significance. However, there exists a significant relationship ($P < .001$) between number of extreme responses (one or five) in the first test of attitude measurement and the rigidity score ($r = 0.31$, $df = 103$). This means that those who are more rigid are likely to show more extreme responses in their attitudes.

The coefficient of correlation between intelligence score and total test deviations was $-.28$ ($df = 82$, $P = < .05$). This means that the more intelligent one is, the less he will deviate from the group norm. In other words the intelligent persons show greater conformity to the group norm so far as their change of attitudes is concerned.

There also exists a significant and ($P < .05$) positive relationship ($r = .22$, $df = 85$) between neuroticism score and total test deviations. This shows that the more of neurotic trait one has the more he deviates from the group norm. In other words the neurotics seem to be less prone to change of attitude towards the group norm. This supports Eysenck's (4) finding that nonconformity is a measure of neuroticism.

The coefficient of correlation between extraversion and total test deviation is $-.10$ ($df = 84$), which is not significant.

E. SUMMARY

The test was conducted on a group of 105 undergraduate students. They were asked to check six items—three social and three political issues—on a five-point scale. These 105 Ss were divided into groups of three categories, each category consisting of 3, 7 or 11 members. Five groups from each of the three categories were studied. After a week of the first test, group discussions were carried out for six minutes and a group decision was arrived at on each of these six items. After a group decision, the group members were asked to check the item on the same five-point scale. Soueif's (12) rigidity questionnaire, Raven's Progressive Matrices (10), Eysenck's (5) neuroticism and extraversion-introversion questionnaire were applied on each S.

The following conclusions can be drawn from the results of the investigation:

1. There seems to be no relationship between the number of extreme attitudes one holds and his deviation from the group norm established after group discussion. But there is a significant relationship between total pre-test deviation and total test deviation ($r = .25$, $P < .05$) of these Ss. It means that the more away one is from the group standard the less he will change his attitude towards the group norm after the group discussion.

2. There seems to be no relationship between rigidity and amount of change of attitude towards the group norm after group discussion. But rigidity is positively correlated with number of extreme attitudes one holds ($r = .31$, $P < .01$).

3. The intelligent persons show greater change of their attitudes towards the group norm. The coefficient of correlation between intelligence and total test deviation was $-.28$ ($P < .05$).

4. There exists a significant relationship between neuroticism and total test deviation ($r = .22$, $P < .05$). The neurotics show less group conformity.

5. There seems to be no relationship between extraversion and change of attitude towards group norm.

REFERENCES

1. ASCH, S. E. In D. Cartwright and A. F. Zander, *Eds.*, Group Dynamics, Research, and Theory. Evanston, Ill.: Row, Peterson, 1953.
2. CRUTCHFIELD, R. Assessment of persons through a quasi-group interaction technique. *J. Abn. & Soc. Psychol.*, 1951, **46**, 577-588.

3. DEXTER, E. S. Personality traits related to conservatism and radicalism. *Charac. & Personal.*, 1939, **7**, 230-237.
4. EYSENCK, H. J. Dimensions of Personality. London: Routledge & Kegan Paul, 1947.
5. ———. The questionnaire measurement of neuroticism and extraversion. *Rev. Psicol.*, 1956, **50**, 113-140.
6. GORDON, R. L. In D. Cartwright & A. F. Zander, *Eds.*, Group Dynamics, Research, and Theory. Evanston, Ill.: Row, Peterson, 1953.
7. HONKAVAARA, S. Some critical notes concerning the concept of rigidity and its measurement. *J. of Psychol.*, 1958, **45**, 43-45.
8. NEWCOMB, T. M. Social Psychology. London: Tavistock Publications, 1952.
9. RATH, R., & MISRA, S. K. Change of attitudes as a function of size of discussion groups. *J. Soc. Psychol.*, 1963, **59**, 247-257.
10. RAVEN, J. C. Progressive Matrices. London: Lewis, 1938.
11. STEINZOR, B. The spatial factor in face to face discussion groups. *J. Abn. & Soc. Psychol.*, 1950, **45**, 552-555.
12. SOUEIF, M. I. Extreme response sets as a measure of intolerance of ambiguity. *Brit. J. Psychol.*, 1958 (Nov.), **49** Part 4.
13. VETTER, G. B. The measurement of social and political attitudes and the related personality factors. *J. Abn. & Soc. Psychol.*, 1930, **25**, 149-189.
14. WERNER, H. Abnormal and subnormal rigidity. *J. Abn. & Soc. Psychol.*, 1946, **41** No. 1, 15-24.

Department of Psychology

Utkal University

Bhubaneswar, India

COALITIONS IN THREE PERSON GROUPS*¹

Madison, Wisconsin and The University of Wisconsin

MARIE L. BORGATTA AND EDGAR F. BORGATTA

Much of the current literature on coalition structures focuses on a rather narrow view of what constitutes a coalition (3). For example, Ganson (4) states as one condition for a "full-fledged" coalition situation: "1. There is a decision to be made and there are more than two social units attempting to maximize their share of the payoff." This statement could be interpreted broadly to include all social situations involving more than two social units, but this is not the tendency. The decisions considered are not the component social acts, but global Decisions with a capital D. Payoff is translated most generally into power and economic equivalence. It is possible, however, to make the statement fit every unit of social interaction if one simple assumption is made as follows: In each social act the actor has some concern with his position relative to the others, and that any such concern is a matter of "payoff."

It seems strategic to determine if a set of definitions can be suggested that will lead to a more direct analysis of social interaction rather than to economic-power type global decisions. In the study of social psychology this should be crucial, for much of the "goal" orientation or payoff of social behavior is not clear cut. Possibly this will move some researchers away from the simpler games where the initial resources are clearly relevant and knowable, but there is also some point to viewing this as a field of study that can profit from systematic observation as well as experimental manipulation.

A. DEFINITION

In the three-person situation, a *coalition* exists when two persons act in accord (with a common goal). If three persons act in accord (with a common goal), the situation is called a *unanimity*. If no two persons act in accord (with a common goal), the situation is called a *non-coalition*.

* Received in the Editorial Office on October 27, 1961.

¹ This research was supported in whole or in part by the United States Air Force, under contracts AF49(638)-195 at New York University and AFSOR 61-30 at Cornell University, monitored by the Air Force Office of Scientific Research of the Air Research and Development Command. We appreciate the work of John Stimson, Robert Guerrin, Gerald Marwell, and Ardyth Stimson who collaborated in the program of research at N.Y.U.

The meaning of these statements must be clarified through limiting cases: Goal refers specifically to the principle that determines the action. Thus, if two persons agree that segregation must be abolished, and the third does not, this is *potentially* a coalition situation. If two persons agree that segregation should be abolished, and the third does not, and the two act in accord to convince the third of their position, then a coalition exists; the goal of the two persons here may be more specifically defined as that segregation should be abolished and the third person should be convinced of this. (If the two persons agree that segregation should be abolished through a given means, and act in accord, then a coalition exists.) If the two persons agree that segregation should be abolished, but do not agree on the means and consequently do not act in accord, no coalition exists. In the second case there was not agreement on the relevant goal; two goals existed, abolition of segregation through means A and through means B. The degenerate case in which two persons independently (without communication or without the action of the one affecting the other) act in accord with a common goal is included in the definition of a coalition. This is a *de facto* coalition viewed from the perspective of the third person.

A point of emphasis: When two persons agree on a specific statement of a goal, this should predispose for a coalition. If action develops that involves the stated goal as specifically assessed, the coalition is likely. However, since people are not simple, the assumption cannot be made that, because two persons agree on a statement of a goal and a third does not, when the three persons are asked to discuss this statement a coalition *must* develop corresponding to the assessed positions.

The coalition may not develop for a number of reasons: The first and most obvious is that the two persons agreeing may have different interpretations of the meaning of the statement, and thus while they may have the same response, the coincidence of goals is not demonstrated.

The second is that, given the task of discussing the stated goal, the three persons may not accept this task but implicitly define another. For example, one of the two persons who agree on the statement may look at the other and decide (with or without awareness) that what he will do in the discussion is to give the other a "hard time." That is to say, the action that occurs does not have the manifest goal as its base; the goal of the person is defined by his response to the other, and the goal involved in the statement becomes incidental in the action.

In summary, thus, the definition of a coalition suggested here requires identification of action in accord with a "common goal." Identification of

a "common goal" establishes the probability of coalition formation but the condition is not a necessary consequence. The crux of the definition is identification of the unit of "action in accord." The arbitrary standard for judging the existence of a coalition needs to be specified. If two persons act in accord with a common goal of convincing the third person he should agree with them, they may in this process agree and disagree with each other during the interaction. On the overall goal, the net consequence of their interaction over a period of time may be judged as a coalition. *Each disagreement, however, may be judged as a breaking of a coalition. The judgment of whether a coalition exists over time depends either on persistent action in accord or the tendency for a given coalition to recur.* Obviously, if a presumably irrevocable action guaranteeing accord occurs, a coalition is judged to exist. Examples of the latter may be the pooling of resources to defeat a third person in a game, or a marriage when viewed from the point of an outsider. On the other hand, the notion that agreements and disagreements can occur while a coalition is maintained in the overall sense suggests a complexity of goal structures, with goals within goals, and goals competing with other goals.

B. ASPECTS OF STUDY OF COALITIONS

The study of coalitions can focus on at least two major aspects. The coalition structure may be viewed as an end point, and interest may center on the analysis of factors that lead to the formation of structures of given types. This type of analysis may be oriented to understanding developmental processes in the formation of social structures, as well as the characteristics of social structure themselves.

The second focus may begin with the assumption that a given type of structure exists, and the question that may be investigated concerns the consequences of the structure for other classes of social phenomena, such as the personalities of the members and the products of the group.

It is also possible to study coalitions in a more general frame of reference, that is, as the interplay of personality, structure, and developmental trends in a longitudinal system. In this case, the coalition represents one aspect of study rather than the core. In this orientation presumably the formation of structures, including coalitions, may be viewed as mediating circumstances in the prediction from one point in time to another, or from a given input to a group product.

C. THE GROUP CONSEQUENCES OF PRIOR AGREEMENT STRUCTURE

The analysis presented here is more in keeping with the exploration of coalition study than with an experimental approach. In accord with the

expectation that coalition structures will be likely to form along the lines of pre-assessed agreement and disagreement on the basic topic of discussion, groups were classified as unanimous (U) or forming a coalition and an isolate (CI). Data are from 38 three-person groups of N.Y.U. male students who participated in three discussions of 20 minutes each. The subjects had had previous discussion and other research experience, but had not participated together.

The question of what differences should be expected for U and CI groups is not a simple one since there appear to be competing hypotheses. On the one hand, it might be expected that interaction rate would be higher in the unanimity since, under the condition of agreement, one might expect a fluid communication system that allows free and active communication among the members. On the other hand, the coalition condition might also be one that is associated with high activity, since disagreement provides a motive for communication of one's position. Counter to each of these suggestions are the following: In the condition of unanimity, there may be no press for communication, and in fact a condition of conversational vacuum may develop that leads to tension and awkward pauses in a situation that demands conversation according to experimental instructions. In the coalition condition, tension may develop also, along with other factors that inhibit communication, such as withdrawal of one of the members, or relegation of one to an isolated position. Thus, comparison of the unanimity condition with that of the coalition and the isolate is not one that provides the opportunity for clear-cut prediction of consequences, and no prior studies in the literature report findings directly on this.

In Table 1 the percentage profiles for groups in the unanimity and coalition conditions are compared. The possible arrangements of coalitions are indicated in Table 2. In the unanimity condition in the first discussion topic (Part 1), the average number of interactions per person for the 20-minute period is 159, compared to 144 for the coalition condition, or a difference of about ten per cent. This difference, however, is not statistically significant, and in fact is neither dramatic nor consistent in subsequent parts of the discussion session. Basically, there is more variation among groups of a type than there is between U and CI groups.

Examining the percentage profiles in Table 1, it is possible to compare the qualitative differences in the interaction of the U and CI groups.² A number

² A revised interaction process analysis system is used in this research. A brief description of the system is indicated in Table 1. A detailed description can be found elsewhere (1).

TABLE 1

INTERACTION PROFILES BY PARTS AND PRIOR AGREEMENT STRUCTURE: UNANIMITIES AND COALITION-ISOLATE GROUPS

Number of groups Structure	Part 1		Part 2		Part 3	
	12 U	26 CI	10 U	28 CI	10 U	28 CI
Category						
1 Social acknowledgments	.1	.5	.1	.4	.3	.3
2* Shows solidarity	1.4	1.6	1.6	2.2	1.9	2.6
3* Laughs	1.9	2.2	2.2	2.4	3.1	3.3
4 Acknowledges	4.9	5.6	5.2	4.5	4.8	3.9
5* Shows agreement	2.6	3.0	2.4	2.6	1.9	2.7
6* Procedural suggestion	5.0	5.7	4.0	4.6	3.4	4.2
7* Suggests solution	1.8	1.6	1.6	1.5	1.7	1.6
8* Gives evaluation	37.5	41.7	39.7	43.1	40.7	42.4
9 Self-analysis	.0	.0	.0	.0	.1	.1
10 Redirected aggression	.1	.1	.2	.1	.1	.2
11 Gives information	1.5	1.7	1.4	2.1	2.6	1.8
12 Draws attention	17.3	20.5	20.2	19.6	17.6	21.1
13 Asks evaluation	.9	.5	.9	.7	.5	.6
14 Disagrees	4.3	3.3	4.5	4.7	4.3	4.7
15* Shows inadequacy	9.8	9.1	8.6	7.2	6.6	6.4
16* Tension increase	8.5	2.4	4.5	2.1	8.0	2.2
17* Shows antagonism	2.6	.8	3.0	1.7	2.3	1.9
18 Ego defensiveness	.2	.1	.0	.1	.1	.1
Total	100.4	100.0	99.9	99.6	100.0	100.0
Rate per person for 20 minutes	159	144	143	150	158	152

* Denotes categories in which U condition is either consistently higher or lower than the CI condition.

of differences are immediately visible, but in order for these to be meaningfully interpreted it is necessary for them either to be consistent or to vary in accord with theoretical expectations. The categories marked with an asterisk are those for which the U condition is either consistently higher or consistently lower than the CI condition in all the three successive discussion parts.

One might speculate *a priori* that U groups would show more solidarity in interaction behavior than the CI groups. In fact, the reverse appears to be the case. On the most relevant categories, U groups are lower than CI groups on showing solidarity and laughter (IPS 2 and IPS 3). Also, U groups show *more* tension (IPS 15 and IPS 16) and hostility (IPS 17) than the CI groups. They display less agreement (IPS 5), give fewer procedural suggestions (IPS 6), and fewer opinions (IPS 8). Direct solutions (IPS 7) are suggested more often in U groups.

Assuming the differences are real, one might explain them by noting that the U members *do* agree, but since under experimental instructions they are forced to discuss the topic, the only way in which the topic can be discussed,

TABLE 2
COALITIONS BASED ON AGREEMENT STRUCTURE

	Discussion Part I	Discussion Part II	Discussion Part III	Group number
1	XXX	XXX	XXX	09.
2	XXX	XXX	XX X	07, 22, 28
3	XXX	XX X	XXX	18
4	XXX	XX X	XX X	04, 31, 33
5	XXX	XX X	X XX	01, 15, 24, 35
6	XX X	XXX	XXX	13
7	XX X	XXX	XX X	12, 26, 30, 38
8	XX X	XXX	X XX	05
9	XX X	XX X	XXX	10, 17, 34
10	XX X	X XX	XXX	16, 19, 21, 36
11	XX X	XX X	XX X	03
12	XX X	X XX	XX X	02, 08, 11, 20, 37
13	XX X	XX X	X XX	23, 27, 29, 32
14	XX X	X XX	X XX	14
15	XX X	X XX	X X	06, 25
			X	
				Number of cases
	XXX	XXX		4
	XXX	XX X		8
	XX X	XXX		6
	XX X	XX X		8
	XX X	X XX		12

Note: XXX = Unanimity. XX X, X XX, or X X = Coalitions.
X

actually, may be to raise issues in a somewhat artificial manner. In a way, the participants may be forced to carry the conversational football after the game is over. On the other hand, opponents on an issue may feel compelled to communicate and thus the disagreement itself may serve as a motivating and integrating force for the group. Further, persons who disagree markedly, when forced into a social situation, often make the best of it with tactful diplomacy. It is possible, thus, that the element of persuasion enters to render congenial communication necessary. In order to persuade, it may be necessary to avoid feelings that would generate resistance, such as might be excited by open disagreement or hostility. The arguments of persuasion may need to be couched in feelings of acceptance and understanding so far as the dissident individual is concerned. These, however, are speculations that require empirical observation before being given weight.

It is also possible that the two individuals in coalition may make special efforts with regard to the structure of the group to avoid appearance of brow-beating the underdog, feeling more secure in the knowledge of an ally. If such factors operate, one should be able to find qualitative differences between profiles of isolates and coalition members. As seen in Table 3, such

TABLE 3
INTERACTION PROFILE BY PARTS FOR COALITION-ISOLATE GROUPS: COALITION MEMBERS
AND ISOLATES

Number of persons Structure	Part 1		Part 2		Part 3	
	52 C	26 I	56 C	28 I	56 C	28 I
Category						
1	.3	.2	.3	.5	.3	.4
2	1.7	1.6	2.1	2.3	2.9	2.2
3	2.2	2.1	2.5	2.3	3.2	3.6
4	5.2	6.3	4.7	4.3	3.5	4.7
5	2.6	3.8	2.7	2.3	2.6	3.1
6	5.4	6.3	4.6	4.6	4.2	4.1
7	1.6	1.8	1.5	1.7	1.7	1.5
8	42.1	40.9	42.8	43.8	42.3	42.6
9	.0	.1	.0	.0	.1	.0
10	.1	.1	.1	.1	.1	.2
11	1.9	1.4	2.2	1.8	1.7	2.0
12*	20.7	19.4	20.0	18.9	21.6	19.9
13	.5	.6	.8	.5	.6	.6
14	3.2	3.5	5.0	4.1	4.8	4.5
15	9.6	8.1	6.6	8.6	6.4	6.5
16	2.4	2.4	2.1	2.2	2.1	2.3
17	.6	1.4	1.7	1.8	1.8	1.8
18	.1	.2	.1	.1	.1	.2
Total	100.2	100.2	99.8	99.9	100.0	100.2
Rate per person for 20 minutes	146	141	151	148	155	147

* See footnote Table 1.

factors are not visible in the interaction profiles. More detailed tables, not presented here, also are void of such differences (3).

D. SUMMARY

An alternate definition is proposed to direct attention of research on coalitions towards the analysis of social interaction. Foci for research are stated. A research is presented on the consequences for group interaction of unanimity and coalition-isolate agreement structures. Interaction differences between group structures were found but they did not correspond to the naive theory. Differences between coalition members and isolates in quality of interaction were not manifest.

REFERENCES

1. BORGATTA, E. F. A systematic study of interaction process scores, peer and self assessments, personality and other variables. *Genet. Psychol. Monog.*, 1962, 65, 219-291.
2. BORGATTA, M. L. Three-person groups: A study of coalition structures and other factors in interaction behavior. M.A. thesis, New York University, 1961.

3. ———. Power structure and coalitions in three-person groups. *J. Soc. Psychol.*, 1961, **55**, 287-300.
4. GAMSON, W. A. A theory of coalition formation. *Amer. Soc. Rev.*, 1961, **26**, 373-382.

Department of Sociology

University of Wisconsin

Madison 6, Wisconsin

INTELLIGENCE AND DELINQUENCY: A RECONSIDERATION*¹

*Massachusetts Division of Legal Medicine and Massachusetts Division of
Youth Service*

NORMAN M. PRENTICE AND FRANCIS J. KELLY

A. PROBLEM

In an earlier review of the relationship between intelligence and delinquency, Shulman (20, p. 763) observed that "Harry H. Goddard, one of America's most distinguished adherents of the psychological school of crime was impelled to state as late as 1919 that 'the greatest single cause of delinquency and crime is low grade mentality.'" Shulman concluded that the mental deficiency theory of delinquency was given undeserved support in the application of early crude intelligence tests to selective samples of institutionalized offenders. His review suggested that later findings based on diverse delinquent populations tested by more adequately developed instruments and with increased sophistication in interpretation largely discredited the belief that significant differences in mental ability occur between delinquents and the general population. Shulman's review was based on a variety of intelligence tests including and predating the Stanford-Binet (1937 Revision). The present report re-examines his conclusion from the standpoint of the more recently published Wechsler Intelligence Scales.

A subsidiary focus of the report is an assessment of the diagnostic utility of Wechsler's assumption that the test-performance of the delinquent is differentiated by a Performance scale *IQ* score substantially higher than the Verbal scale *IQ* score ($P > V$). As Wechsler stated (23, pp. 155-156):

... the most outstanding single feature of the adolescent psychopath's test pattern is his systematic high performance score as compared with his verbal test score . . . experience has shown that [this discrepancy] is also applicable to the adult male psychopath . . . but may not have the same diagnostic value in the case of the female psychopath.

* Received in the Editorial Office on November 6, 1961.

¹ This study was conducted within the facilities of the Division of Youth Service as part of the collaborative research program sponsored by the Division of Youth Service, Dr. John D. Coughlan, Director; and the Division of Legal Medicine, Dr. Robert W. Hyde, Director. Mr. Thomas Cooke and Miss Lois Hurwitz greatly assisted data collection. Miss Joan Allen and Miss Margaret Neely provided valuable secretarial services.

While other diagnostic signs of psychopathy were enumerated by Wechsler for his scale, these have received less attention than the $P > V$ in the research literature. Moreover these other signs are less commonly relied upon in clinical practice than $P > V$ which is often interpreted as signifying the delinquent's motility as opposed to ideational orientation. While the utility of the $P > V$ discrepancy has been assumed by many clinicians, and indeed substantiated in several studies of delinquents (e.g., 1, 2), other research has called its validity into question (e.g., 9, 14).

B. ANALYSIS AND DISCUSSION

For comparative purposes Table 1 includes those delinquent samples to which Wechsler scales were administered and where the Verbal and Performance scale means (with some indicated exceptions) were reported.^{2, 3}

The Ss were randomly selected from all delinquents (699 boys, 227 girls) committed to the Massachusetts Youth Service Board during a one-year period (1958-1959). The population excludes (as do some other studies in this report, e.g., 9) a small number of grossly defective offenders who are rarely prosecuted as delinquent. Of the males, 75 were Catholic and 25 Protestant. Average grade placement was 8.4, excluding seven in special class or no longer in school. Commitment offenses were: Breaking and Entering, 28; Motor Vehicle Violations, 26; Larceny, 10; Stubbornness, 9; Sex Offenses, 5; Robbery, 5; Assault, 5; and a miscellaneous group of Truancy, Runaway, Arson, Narcotics, Drunk, etc., 12. Of the females, 60 were Catholic, 39 Protestant, and 1 Jewish. Average grade placement was 9.1. Commitment offenses were: Stubbornness, 46; Runaway, 21; Truancy, 11; Sex Offenses, 10; and miscellaneous offenses as Motor Vehicle Violations, Larceny, Assault, Waywardness, Idle and Disorderly, Breaking and Entering, 12. These offenses are less descriptive of specific delinquent acts in girls than boys. Complaints of stubbornnesses are more likely to be brought against girls who have, in fact, been involved in a variety of delinquent activities. The high incidence of Catholicism in these samples reflects residence in underprivileged areas of metropolitan Boston populated largely by Catholic families.

Data for control groups are given where these were integral to the

² Restriction to the Wechsler scales excludes a number of studies wherein the relationship of intelligence to delinquency has been investigated through other tests. See Cabot (4).

³ For purposes of this report, delinquency (or psychopathy) is defined broadly as a pattern of anti-social behavior in either child or adult leading almost invariably to court purview and often institutionalization.

TABLE 1
WECHSLER-BELLEVUE INTELLIGENCE SCALE SCORES OF DELINQUENT SAMPLES^a

Study	Year	N	Sample ^b	Age		Form		P.S.	V.S.	F.S.
Altus & Clark	1949	53	Training camp (includes 31 Mexicans)	R 14-18	\overline{X} SD	I	\overline{X} SD	98.0 ^{c,d}	82.0 ^c	89.0 ^c
Bernstein & Corsini	1953	100	Females in institutions	R	\overline{X} SD	I ^e	\overline{X} SD	100.8 15.3	90.1 14.9	94.8 15.2
		100	(As above)	R	\overline{X} SD	I ^e	\overline{X} SD	99.9 15.5	90.2 14.8	93.9 15.1
Blank	1958	67	Training school	R 14-16	\overline{X} SD	I	\overline{X} SD	99.7 ^d	87.4	92.5
		49	High school students	R 12-16	\overline{X} SD	I	\overline{X} SD	103.2	101.3	102.9
DeStephens	1953	200	Reformatory	R 16-30 ^f	\overline{X} SD	22.0 3.2	I, II \overline{X} SD	98.3 ^d 17.6	90.1 14.5	93.6 15.9
		100	Reformatory (Negroes)	R 16-30 ^f	\overline{X} SD	22.7 3.1	I, II \overline{X} SD	91.2 15.3	86.7 12.7	87.9 14.1
Diller	1952	80	Female clinic outpatients (court referrals)	R 14-17	\overline{X} SD	15.5	I \overline{X} SD	86.2 14.7	80.8 12.8	83.6 15.4
Doppelt & Seashore	1959	98	Federal training school	R 16-17	\overline{X} SD	WAIS	\overline{X} SD			100.5 ^g 13.1
		61	Federal & state institutions	R 18-19	\overline{X} SD	WAIS	\overline{X} SD			99.7 ^g 11.9
		95	Federal reformatory	R 20-24	\overline{X} SD	WAIS	\overline{X} SD			100.6 ^g 10.5
		194	Federal penitentiary	R 25-35	\overline{X} SD	WAIS	\overline{X} SD			97.2 ^g 14.4
Durea & Taylor	1948	109	Industrial school	R 11-18	\overline{X} SD	I	\overline{X} SD	94.5 ^{c,d}	83.8 ^d	87.6

TABLE 1 (continued)

Study	Year	N	Sample ^b	Age		Form		P.S.	V.S.	F.S.
Foster	1959	44	Adolescent delinquents	R 11/ 5-16/11	\overline{X} \overline{SD}	15.0	I	\overline{X} \overline{SD}	98.3	96.3
Franklin	1945	276	Training school (Negroes)	R 9/ 7-20/ 1	\overline{X} \overline{SD}	14.6 1.6	I	\overline{X} \overline{SD}	80.4 18.2	76.2 14.5 76.5 15.4
Glueck & Glueck	1950	500	Training schools	R	\overline{X} \overline{SD}	14.7 1.6	I	\overline{X} \overline{SD}	97.2 13.4	88.6 14.6 92.3 13.3
		500	Matched non-delinquents	R	\overline{X} \overline{SD}	14.5 1.4	I	\overline{X} \overline{SD}	98.1 12.9	92.0 12.2 92.2 12.0
Graham & Kamona	1958	33	Federal institution (unsuccessful readers)	R 16-17/11	\overline{X} \overline{SD}	17.0	WAIS	\overline{X} \overline{SD}	99.8	90.3 93.9
		35	Federal institution (successful readers)	R 16-17/11	\overline{X} \overline{SD}	17.2	WAIS	\overline{X} \overline{SD}	104.3	105.2 105.1
Harris	1957	25	Training school (Nova Scotia)	R 13-16	\overline{X} \overline{SD}		WISC	\overline{X} \overline{SD}	98.8	84.3
		25	Matched non-delinquents (Nova Scotia)	R 13-16	\overline{X} \overline{SD}		WISC	\overline{X} \overline{SD}	93.4	90.0
Jastack & Allen	1944	50	Clinic outpatients referred by court primarily	R 10-17	\overline{X} \overline{SD}		I	\overline{X} \overline{SD}		85.0 ^h
		50	Females as above	R 10-17	\overline{X} \overline{SD}		I	\overline{X} \overline{SD}		81.0 ^h
Kingsley	1960	20	Psychopathic prisoners (military, disciplinary barracks)	R 19/10-33/ 1	\overline{X} \overline{SD}	22.2		\overline{X} \overline{SD}^*		99.9 ⁱ 10.9

TABLE 1 (continued)

Study	Year	N	Sample ^b	Age		Form		P.S.	V.S.	F.S.
Kingsley (cont'd)	1960	20	Matched prisoners (non-psycho- pathic)	R 21/10-27/ 6	\overline{X} SD	26.3 4.2		\overline{X} SD		
		40	Military personnel		\overline{X} SD					98.2 10.6
Prentice & Kelly	1960	100	Diagnostic reception center	R 8/ 1-17/11	\overline{X} SD	15.5 1.8	WAIS, I WISC, II	\overline{X} SD	98.0 ^d 11.8	90.9 12.4
		100	Females as above	R 13/ 0-17/11	\overline{X} SD	15.4 .9	WISC I, II	\overline{X} SD	95.4 ^d 12.2	89.4 11.8
Richardson & Surko	1956	105	Inpatients referred by court for study (includes 15 girls)	R 8/ 4-16/ 0	\overline{X} SD	12.3 ^c	WISC	\overline{X} SD	92.4 ^d 18.2	87.0 15.0
Strother	1944	14	Psychopathic outpatients & inpatients of hospital	R 16-21	\overline{X} SD		I	\overline{X} SD	101.7 13.4	99.4 11.0
Vane & Eisen	1954	100	Females in reformatory	R 16-25	\overline{X} SD	18.5 1.5	I	\overline{X} SD	98.5 ^d 10.1	93.6 9.7
		100	Matched non-delinquents in high school	R 16-25	\overline{X} SD	17.3 .9	I	\overline{X} SD	100.9 ^d 8.9	93.1 7.7
Walters	1953	50	New Zealanders (European descent) in main security prison	R 20-45	\overline{X} SD		I	\overline{X} SD	101.9 12.2	101.1 13.7
										101.8 13.3

TABLE 1 (continued)

Study	Year	N	Sample ^b	Age		Form		P.S.	V.S.	F.S.
Walters (cont'd)	1953	50	New Zealanders (Maori descent) as above ^c	R 20-45	\overline{X} SD	I	\overline{X} SD	89.1 12.1	82.1 13.2	84.4 13.0
Wechsler	1955	52	Reformatory	R 16-26	\overline{X} SD	27.8 WAIS	\overline{X} SD	98.3 12.6	93.8 10.9	95.4 11.7
Wiens <i>et al.</i>	1959	112	Convicted sex offenders in state diagnostic hospital	R 14-64	\overline{X} SD	32.4 WAIS WISC, I	\overline{X} SD	104.0 15.0	97.6 17.3	100.1 15.3
Weider <i>et al.</i>	1943	61	Delinquent & behavior problem clinic patients on observation ward (includes 13 girls)	R 8/ 0-16/ 1	\overline{X} SD	12.3 I	\overline{X} SD	94.0 17.5	82.0 16.1	87.0 16.6

^a For clarity of presentation, all Wechsler scale entries are rounded to tenths, all age ranges expressed in months, all age \bar{X} s and SDs converted to decimals.

^b All samples are white delinquent males in state correctional institutions except where stated otherwise.

^c Median scores only reported.

^d $P > V$ at .05 level or greater where reported in study.

^e While not stated, Form I was apparently administered to adolescent delinquents.

^f Reported for entire group of 300 only.

^g While no Performance or Verbal means are reported, "In all age groups, the Performance IQ was higher than the Verbal IQ. The difference was only 1.7 IQ points for the oldest group, although it was 4 to 5 IQ points for the younger groups" (7, 1959, pp. 86-87).

^h While no Verbal or Performance means are reported, "only eleven children out of the 100 have a balanced pattern of perceptual orientation. There is only one true verbalist in the group. Eighty-nine have a strong non-verbal orientation. Both boys and girls show the same degree of deviation" (15, 1944, p. 102).

ⁱ Presented for combined prisoner groups only. "P IQ was greater than V IQ, at 1 per cent level of confidence, in all three groups. This difference was not significantly greater in the psychopaths as compared to the other prisoners nor in the general prisoner group as compared with the controls" (16, 1960, p. 373). Form of Wechsler administered not reported.

study. By and large, the findings substantiate Shulman's conclusion that delinquency is largely unrelated to intelligence. This statement applies with particular force to the Performance scale where the mean of 24 independent delinquent samples falls within the normal range (95.2), albeit slightly lower than Wechsler's theoretical mean of 100.00. The Verbal *IQ* mean of 87.9 for these same samples, however, falls in the Dull Normal range. It should be noted that both of these means are probably depressed by the inclusion of several samples with special characteristics. Thus, Franklin's (10) discrepant results (Performance mean of 80.4, and a Verbal mean of 76.2) are probably attributable to the large number of Negro delinquents in his sample who tested at Borderline and Defective levels. Thus, of 276 boys, 160 earned Full scale scores of less than 79, 70 of these falling below a score of 66. Further, it is important to recall Wechsler's reservation regarding the extension of his scales to groups not represented in the test standardization. These would include the Negroes in the Franklin (10) and DeStephens (5) research, the Mexicans in the Altus and Clark (1) investigation, and the Maori and Australians in Walters' (22) study.⁴ All of these samples are likely to be handicapped to some degree on Wechsler Form I (and presumably Form II as well) which was standardized on white Americans (23, 24). Further, while most studies report Verbal scales as falling in the Dull Normal-Low range, there is reason to suspect that the Verbal scale itself may not provide a "true" measure of intellectual capacity with some offenders. Richardson and Surko (18), for example, reported that their delinquents were significantly lower on the Vocabulary, Information, and Arithmetic subtests of the Verbal scale as well as on school achievement tests in reading and arithmetic. They concluded that the "delinquent is not so much deficient in intellectual ability as in the utilization of his ability in school tasks" (18, p. 260).

With respect to Wechsler's contention that $P > V$ is diagnostic of adolescent psychopathy, the findings are in substantial agreement. Almost without exception, these studies based largely on an adolescent population (1, 2, 6, 7, 8, 13, 15, 16, 18) report the significant elevation of Performance over Verbal *IQs*. Moreover, this pattern is sustained generally in the majority of other studies in spite of decided variations in age, sex, race, setting and form of Wechsler scale administered, as well as substantial differences between the criteria for delinquency. This conclusion departs

⁴ Walters (21, p. 53) recognizes the questionable validity of assessing Maori intelligence through these scales, but suggests that the results may "provide an indication of the extent to which any Maori has absorbed the educational and cultural influences of the [Australians of European descent]."

from that of Wiens, Matarazzo, and Gaver (27) who were persuaded that the research literature failed to support the prevalence of this pattern amongst delinquents.

To what can this pattern be attributed? Vane and Eisen (21) emphasized that the $P > V$ differential in the 16-19 age delinquent group was an artifact of Wechsler's (23, p. 122) standardization of Form I wherein substantial $P > V$ discrepancies occur. However, this shortcoming does not appear to apply with equal force to the presence of $P > V$ in other age groups to which Form I has been administered, nor to other Wechsler scales where the $P > V$ differentials did not obtain in the standardization group. With respect to the latter, Seashore (19) discussed how the standardization procedures for the WISC were such as to exclude any important age differences in discrepancy scores—that is, in the systematic occurrence of $P > V$ or $V > P$.

From another perspective, Bernstein and Corsini (2) initially assumed that the $P > V$ discrepancy could be attributed to sequence of administration. They argued that a gradual decrease of anxiety occurring during the testing session accounted for the elevated Performance scale conventionally administered after the Verbal scale. However, their study revealed no significant differences related to order of administration of the Performance and Verbal scales in two matched groups of female delinquents. Nevertheless, in both groups, the Performance scale mean exceeded the Verbal scale mean significantly.

While the $P > V$ pattern then seems generally associated with delinquency, to what extent is this pattern differentially diagnostic of delinquency? Accumulating evidence suggests that it is not. First, there is some data to indicate that $P > V$ may occur in other diagnostic groups. Thus, Graham (12) found that the WISC scattergrams of unsuccessful readers without court contact closely paralleled the pattern posited by Wechsler for psychopaths. A second, more conclusive source of evidence is the occurrence of the $P > V$ pattern in non-delinquent groups of normal controls. Vane and Eisen (21) in the previously cited study, compared a group of 100 delinquents with a group of 100 non-delinquents matched for age, socioeconomic status, and educational level. They found no significant differences between groups on the Wechsler scales, although in both groups the Performance scale significantly exceeded the Verbal scale. Further Glueck and Glueck (11) were able to match a non-delinquent control group with a delinquent sample along a number of variables including intelligence as measured by Wechsler Full Scales. Their data revealed that $P > V$ occurred in both groups to a

significant degree. Even more compelling is the demonstration of significant $P > V$ discrepancies *within* delinquent groups themselves. Thus, in a recent study, Graham and Kamano (13) showed that youthful offenders who were successful readers were found to perform equally well on both Verbal and Performance scales while those offenders markedly deficient in reading exhibited the $P > V$ discrepancy. These findings suggest that the $P > V$ pattern may be more diagnostic of learning difficulties that are a relatively frequent concomitant of delinquency than of delinquency itself.

In view of the presently available data there is little evidence to justify Wechsler's contention that the $P > V$ pattern is a useful one in differentiating psychopathy *per se* although it may be diagnostic of some kinds of learning disabilities. In this connection, Seashore's (19, p. 65) general admonition concerning the interpretation of discrepancy scores is instructive:

It should be apparent by now that in our everyday clinical practice we must be extremely cautious in attaching any unusual meaning to difference in Verbal and Performance *IQ*'s, even when they are of considerable size. A difference may be important, but not just because it is a difference. Other data must be adduced to permit attaching any import to a discrepancy [either of $P > V$ or $V > P$] even as big as 5, 10, or 15 points.

C. SUMMARY

The chief purpose of this report was to consider the evidence bearing on the relationship of intelligence to delinquency. The bulk of the available evidence indicated that the intelligence of delinquents assessed by the Wechsler Intelligence Scales was in the Normal range as measured by largely perceptual-motor tasks (Performance scale), although in the high Dull Normal range when measured by largely verbal skills (Verbal scale). It was suggested, however, that the "true" incidence of intelligence in delinquency may not be significantly different from the general population.

A secondary purpose of this report was to investigate the utility of the assumption that a Performance score substantially greater than a Verbal score on the Wechsler scales was diagnostic of delinquency. The evidence argued against this assumption when applied uncritically though there were suggestions that this discrepancy may be diagnostic of some learning disabilities whether or not they occur in a delinquent context.

REFERENCES

1. ALTUS, W. D., & CLARK, J. H. Subtest variation on the Wechsler-Bellevue for two institutionalized behavior problem groups. *J. Consult. Psychol.*, 1949, **13**, 444-447.

2. BERNSTEIN, R., & CORSINI, R. J. Wechsler-Bellevue patterns of female delinquents. *J. Clin. Psychol.*, 1953, **9**, 176-179.
3. BLANK, L. The intellectual functioning of delinquents. *J. Soc. Psychol.*, 1958, **47**, 9-14.
4. CABOT, P. S. DE Q. Juvenile Delinquency: A Critical Annotated Bibliography. New York: H. W. Wilson, 1946.
5. DESTEPHENS, W. P. Are criminals morons? *J. Soc. Psychol.*, 1953, **38**, 187-199.
6. DILLER, L. A comparison of the test performances of delinquent and non-delinquent girls. *J. Genet. Psychol.*, 1952, **81**, 167-183.
7. DOPPELT, J. E., & SEASHORE, H. G. Psychological testing in correctional institutions. *J. Counsel. Psychol.*, 1959, **6**, 81-92.
8. DUREA, M. A., & TAYLOR, G. J. The mentality of delinquent boys appraised by the Wechsler-Bellevue Intelligence Tests. *Amer. J. Ment. Defic.*, 1948, **52**, 342-344.
9. FOSTER, A. L. A note concerning the intelligence of delinquents. *J. Clin. Psychol.*, 1959, **15**, 78-79.
10. FRANKLIN, J. C. Discriminative value and patterns of the Wechsler-Bellevue scales in the examination of delinquent Negro boys. *Educ. Psychol. Meas.*, 1945, **5**, 71-85.
11. GLUECK, S., & GLUECK, E. Unravelling Juvenile Delinquency. New York: Commonwealth Fund, 1950.
12. GRAHAM, E. E. Wechsler-Bellevue and WISC scattergrams of unsuccessful readers. *J. Consult. Psychol.*, 1952, **16**, 268-271.
13. GRAHAM, E. E., & KAMANO, D. Reading failure as a factor in the WAIS subtest patterns of youthful offenders. *J. Clin. Psychol.*, 1959, **15**, 302-305.
14. GURVITZ, M. S. The Wechsler-Bellevue test and the diagnosis of psychopathic personality. *J. Clin. Psychol.*, 1950, **6**, 397-401.
15. HARRIS, R. A comparative study of two groups of boys, delinquent and non-delinquent, on the basis of their Wechsler and Rorschach test performances. *Bull. Marit. Psychol. Assoc.*, 1957, **6**, 21-28 (*Psychol. Abstr.*, 33: 4295).
16. JASTAK, J., & ALLEN, A. Psychological traits of juvenile delinquents. *Delaware State Med. J.*, 1944, **16**, 100-104.
17. KINGSLEY, L. Wechsler-Bellevue patterns of psychopaths. *J. Consult. Psychol.*, 1960, **24**, 373 (Material also taken from Doc. No. 6294, American Documentation Institute).
18. RICHARDSON, H. M., & SURKO, E. F. WISC scores and status in reading and arithmetic of delinquent children. *J. Genet. Psychol.*, 1956, **89**, 251-262.
19. SEASHORE, H. G. Differences between verbal and performance IQ's on the Wechsler Intelligence Scale for Children. *J. Consult. Psychol.*, 1951, **15**, 62-67.
20. SHULMAN, H. M. Intelligence and delinquency. *J. Crim. Law Criminol.*, 1951, **41**, 763-781.
21. VANE, J. R., & EISEN, V. W. Wechsler-Bellevue performance of delinquent and nondelinquent girls. *J. Consult. Psychol.*, 1954, **18**, 221-225.
22. WALTERS, R. H. Wechsler-Bellevue test results of prison inmates. *Aust. J. Psychol.*, 1953, **5**, 46-54.
23. WECHSLER, D. The Measurement of Adult Intelligence. Baltimore: Williams & Wilkins, 1944.
24. ———. Manual for the Wechsler-Bellevue Intelligence Scale, Form II. New York: Psychological Corp., 1946.
25. ———. Manual for the Wechsler Adult Intelligence Scale. New York: Psychological Corp., 1955.

26. WEIDER, A., LEVI, J., & RISCH, F. Performances of problem children on the Wechsler-Bellevue Intelligence Scales and the revised Stanford-Binet. *Psychiat. Quart.*, 1943, **17**, 695-701.
27. WIENS, A. N., MATARAZZO, J. D., & GAVER, K. D. Performance and Verbal IQ in a group of sociopaths. *J. Clin. Psychol.*, 1959, **15**, 191-193.

Division of Youth Service
14 Somerset Street
Boston 8, Massachusetts

SOME ASPECTS OF OPINIONS AND PERSONALITY*

University of Arizona and University of California at Los Angeles

WILLIAM J. MACKINNON AND RICHARD CENTERS

A. PURPOSE

One value of relatively large samples of the type often obtained in survey research is that they may reveal relationships which, though not necessarily strong by themselves, nevertheless provide part of the foundation on which social theory may be built. Our purpose here is to present some survey data of our own, combine it with relevant knowledge obtained by others, and upon this basis suggest some working hypotheses involving opinions and personality.

B. PROCEDURE

The sample consisted of 460 respondents in a cross-section of the Los Angeles population and the data were gathered in person to person interviews. The interview schedule included the Short Authoritarian-Equalitarian Scale (3, 6) permitting dichotomization of the sample into 230 "authoritarians" and 230 "equalitarians." For simplicity we will speak of authoritarians versus equalitarians, though, of course, people fall along a continuum of authoritarianism-equalitarianism.

Immediately following the presentation of the scale items, interviewers introduced two questions with the words, "One of the biggest problems ever faced by our country is the one we now have in our relations with Russia. Perhaps nothing is more in the news these days." The interviewers then continued by asking the respondents to estimate the degree of their understanding of the domestic U.S.S.R. and also to indicate the degree of their confidence in their estimate.¹

C. RESULTS

The replies are summarized in Tables 1 and 2, for which chi-squares yield corresponding probabilities of .02 and .10 respectively. The differences in Table 2, however, reverse the direction of differences found in Table 1. How does it happen that authoritarians less frequently consider themselves informed

* Received in the Editorial Office on November 8, 1961.

¹ The questions were worded, "How well do you understand the Russian way of life or system: very well, fairly well, not at all?" and "How sure are you of that: very sure, fairly sure, or not at all sure?"

on the given topic² but more frequently feel that they know where they stand with respect to the extent of their knowledge?

That authoritarians would tend to regard ignorance of an outgroup as acceptable or desirable is plausible in terms of their general ingroup propensity (1). The same tendency would be suggested by the authoritarian's greater resistance to educational information about the Soviets (4). However, a parallel interpretation is available to provide orientation for further research. It may apply to areas of general information not focused on outgroups specifically.

TABLE 1

AUTHORITARIANISM AND SELF-ESTIMATE OF DEGREE OF ONE'S KNOWLEDGE OF RUSSIA

Estimate	Equalitarians (N = 224)	Authoritarians (N = 219)
Very well or fairly well	74%	63%
Not at all	26	37
	100	100

TABLE 2

AUTHORITARIANISM AND SURENESS OF CORRECTNESS OF SELF-ESTIMATE OF DEGREE OF ONE'S KNOWLEDGE ABOUT RUSSIA

Sureness	Equalitarians (N = 226)	Authoritarians (N = 216)
Very sure or fairly sure	87%	92%
Not at all sure	13	8
	100	100

As a first explanatory step we note that authoritarians usually are less well educated and informed than equalitarians (3). In the groups to which each belongs, furthermore, it may be assumed that some members of the opposite personality type also are present, since for example, authoritarians less frequently rise to positions of responsibility in groups (5, p. 168). Under these conditions authoritarians or equalitarians making judgments about the extent of their information probably compare themselves with others in the groups to which they belong and reflect in their self-concept their informational position in these groups. (The tendencies of authoritarians to misperceive and underestimate real differences between themselves and others with whom they interact (7) would probably reduce somewhat these differences in informational self-estimate between authoritarians and equalitarians.)

² In another study focusing on the U.S.S.R., "topic" refers to Russia as a socially defined entity, and "object" refers to Russia as it exists for the respondent (8, p. 34).

Needless to say the social norms and subjective scales of informational extent may arise not only from social interaction within groups, resulting in each member's acquiring a reputation for information and acquiring some conception of the informational standing of his group with respect to other groups, but also from characteristics serving as signs of information, e.g., degree of the other's education, and from examination of the internal and external consistency of the information the other has communicated. On the whole, authoritarians being less well informed, personality differences in first-order judgments of the extent of the estimator's own knowledge should follow the direction found in Table 1.

The reversal of the direction of this personality difference in second-order judgments which express the degree of the respondent's confidence in his original estimate (as in Table 2) requires additional comment. For variety's sake, we may attempt to view the situation in this instance from the vantage point of the equalitarian. It is known that equalitarians generally belong to more groups than do authoritarians (9, p. 168). The greater the number of membership groups, the greater the variation of the group informational averages is likely to be, and the equalitarian's greater tolerance of ambiguity (2) would permit him to belong to widely diverse groups. (His counterpart, the authoritarian, would misperceive or underestimate intergroup differences, presumably, only so long as these differences were small.) Now as an equalitarian compares himself with different groups of others and shifts his own estimate of his informational standing in terms of the specific group providing the context of judgment, he may become less certain of the correctness of any over-all estimate of his informational position. In a related vein it has been suggested that city dwellers may be relatively more tolerant of nonconformity because many of them have experienced, in their earlier rural life, norms differing from those in the city (9). In the present case, the equalitarian's greater experience with diverse groups would help to account for the personality differences in the "second-order" judgments which reflect the respondent's degree of confidence that his informational self-estimate is correct (Table 1).

Of course, a comparable and supplementary explanation of the two differences we have reported could be made in terms of authoritarians' and equalitarians' relative exposure to mass media of varying number and diversity. It likewise would fuse social, individual, dynamic, and cognitive elements in a parallel interpretation of the aspects of opinions and personality we have viewed. The hypotheses it would confirm are the ones we have suggested, namely, in many areas of general information, authoritarians will place a

lower estimate on the extent of their information than equalitarians will place on theirs; yet the former will be more nearly certain that their estimate of the degree of their information is correct.

REFERENCES

1. ADORNO, T. W., FRENKEL-BRUNSWIK, E., & SANFORD, R. N. *The Authoritarian Personality*. New York: Harper, 1949.
2. FRENKEL-BRUNSWIK, E. Intolerance of ambiguity as an emotional and perceptual personality variable. *J. Personal.*, 1949, **18**, 108-143.
3. MACKINNON, W. J., & CENTERS, R. Authoritarianism and urban stratification. *Amer. J. Sociology*, 1956, **61**, 610-620.
4. ———. Authoritarianism and internationalism. *Pub. Opin. Quart.*, 1956, **20**, 221-230.
5. SANFORD, F. H. *Authoritarianism and Leadership*. Philadelphia: Institute for Research in Human Relations, 1950.
6. SANFORD, F. H., & OLDER, H. J. *A Short Authoritarian-Equalitarian Scale*. Philadelphia: Institute for Research in Human Relations, 1950.
7. SCODEL, A., & MUSSEU, P. Social perceptions of authoritarians and non-authoritarians. *J. Abn. & Soc. Psychol.*, 1953, **48**, 181-184.
8. SMITH, M. B., BRUNER, J. S., & WHITE, R. W. *Opinions and Personality*. New York: Wiley, 1956.
9. STOFFER, S. A. *Communism, Conformity and Civil Liberties*. New York: Doubleday, 1955.

Department of Psychology
University of California
Los Angeles 24, California

SOCIAL CHARACTER AND CONFORMITY: A DIFFERENTIAL IN SUSCEPTIBILITY TO SOCIAL INFLUENCE*

University of California, Los Angeles

RICHARD CENTERS AND MIRIAM HOROWITZ

A. INTRODUCTION

With the publication in 1950 of *The Lonely Crowd*, David Riesman introduced a character typology which, almost without test of its validity, has entered the current of social science thought. It has, in fact, won the status of a criterion in terms of which social scientists assess various aspects of social reality. In this aforementioned work Riesman presents a concept of personality or character direction and a three-fold categorization of types, describing the "tradition-directed," "inner-directed" and "other-directed."

The tradition-directed are oriented in life and social interaction in terms of the long-standing cultural traditions of their group, looking always to the established ways of their ancestors in coping with the environment. Inner-directed persons, in comparison, are governed by their own, less group standardized and more individualistic inner values and morals, while the other-directed individuals depend primarily upon the behavior and opinion of the people around them, to give direction to their actions.

Riesman's typology has been linked by him to the various phases of population growth, so that it is asserted that tradition-directed people are to be found the predominant type in societies with a high growth potential, where both birth and death rates are high as, for example, India, China, Central Africa. The inner-directed are associated with societies in the phase of transitional growth, where the death rate has been substantially lowered, but the birth rate is still high. Examples would be found in many European countries from the Renaissance to recent or present times, and in the United States, up to a short while ago. The other-directed, finally, is a type linked to incipient population decline, where both birth rate and death rate have been much reduced. Riesman alleges it to be becoming the predominant type in highly industrialized societies, especially in large cities and metropolitan areas. The United States today is indicated as being in transition from predominance of inner-direction to predominance of other-direction, with

* Received in the Editorial Office on November 8, 1961.

other-directed people being found in greatest numbers in the middle classes of large metropolitan areas.

Although these writers consider Riesman's theory linking character types to population growth undemonstrated and dubious in validity in any cause and effect sense, we have been able to note many phenomena which suggest validity for the typology *per se*. Recently this conclusion has been greatly strengthened by the development of the I-O Social Preference Scale by Kassarian (4). This instrument successfully demonstrates that it is feasible by its use to validly and reliably order persons in this country on a continuum from inner- to other-directedness.

This scale contains items derived from material in Riesman's *The Lonely Crowd*. Item content was taken from his descriptions of situations in which there was a clear-cut distinction between inner-directed and other-directed individuals. The I-O Scale contains 36 two-choice items, one choice representing an inner-directed response and the second choice an other-directed response. Additionally, the respondent states whether he "mildly agrees" or "strongly agrees" with the item choice; or he may state that he cannot choose between alternatives. Each item can, then, be scored on a five-point scale.

Some typical items from the test, which is fully described elsewhere (4), are:

With regard to a job, I would enjoy more

- a. one in which one can show his skill or knowledge
- b. one in which one gets in contact with many different people

I believe

- a. being able to make friends is a great accomplishment in and of itself
- b. one should be concerned more about one's achievements rather than with making friends

Schools should

- a. teach children to take their place in society
- b. be concerned more with teaching subject matter

Validity of the I-O Scale was determined by two methods. The first method was the comparison of I-O scores of two pre-determined groups, which by virtue of their professional choice may be described as inner-directed or other-directed. A random sample ($N = 100$) was drawn from those graduate students at UCLA who were clearly in inner-directed fields (physics, chemistry, geology, etc.) and a similar sample was drawn from graduate students in other-directed fields (education, social welfare, political science, etc.). The I-O Scale was mailed to these groups, and comparisons were based on the returned tests ($N = 93$). The mean score for the "other-

directed" group was 79.4. The mean score for the "inner-directed" group was 93.9. The resultant t of 4.9 was significant at the .001 level of confidence.

The second method for determining the validity of the I-O Scale was to correlate I-O scores with S's reports on behavior which judgmentally may be stated to reflect the individual's inner- or other-directedness, e.g., frequency of attending parties or social events. An r of .64 was obtained with an undergraduate sample ($N = 150$). Additionally, an r of .64 was obtained between I-O scores and subjective behavior-reports for the graduate sample described previously.

B. PROBLEM

An analysis of data on the distribution of "inner" and "other" social character types in metropolitan Los Angeles is now in progress and will be published in another paper. The present report concerns the test of an hypothesis that is implicit in Riesman's work; namely that other-directed people are more susceptible than inner-directed to the influence of others. Hence they will tend to conform to the opinions of other persons, especially if those in question are perceived as being socially important. In a sense a test of this hypothesis is a validity test of Riesman's theory, for if other-directed persons are *not* more susceptible to the influence of others the whole concept of *other*-directedness is meaningless and empty. Such a statement, of course, implies a reasonably valid and reliable measuring instrument, and the I-O Social Preference can qualify here, with a reliability coefficient of .85 and a validity coefficient of .69.

Earlier, for the sake of comparison, it was contemplated employing an ID-OD questionnaire originally developed by Graham (1955) which is described in part by her in an article in Hovland & Janis' *Personality and Persuasibility* (3). A copy of this instrument, however, could not be obtained. Graham's work itself offers some limited but positive evidence for our hypothesis in finding that opinion changers tend to be more other-directed (by her scale) than nonchangers.

C. PROCEDURE

The 36-item I-O Social Preference Scale was administered to a sample of 364 students enrolled in an elementary class in psychology at UCLA. These were then divided into four groups. They were first assigned to one of two categories on the basis of extreme scores on the I-O scale. The second step was random assignment of persons in each category to either an experimental or a control group. More specifically the other-directed category

consisted of those subjects who had scores equal to or greater than one standard deviation above the mean, while the inner-directed were defined as those whose scores equaled or surpassed one standard deviation below the mean.¹ Each category of respondents was then subdivided into an experimental and control group by random assignment so that there then existed an inner-directed experimental group, an inner-directed control group, an other-directed experimental group and an other-directed control group.

A final check was made to insure that there existed no difference between the means of the randomly divided halves of each group.

A questionnaire to elicit expression of opinion was then administered to each of the four groups with social influence being exerted on the experimental groups, but none on the controls. For this purpose 24 items from the F scale (1) were selected. This appeared to be ideal for the purpose since responses to it were shown by Kassirjian to be quite unrelated to responses in the I-O Scale (a correlation of $-.005$ was obtained). Items of the scale, moreover, are of such varied and general content as to be interesting to most people. Finally, F-scale items tap beliefs of a basic and fundamental nature rather than ones of transient, trivial or peripheral character. Thus whatever influence might be found would gain in social and practical significance since it would be involved with presumably deeply rooted aspects of peoples' orientations to their world. It is also to be noted that people might be expected to be more resistant to influence on such opinions than on more peripheral ones, hence the material used would represent a more forceful test of the hypothesis and hold our results to the conservative side.

The administration of the questionnaire to the control subjects was accompanied by the following instructions: "In these days of transition and unrest there is so much talk and expression of opinion that it is difficult to know just what people are thinking. This is a survey to find out how students feel about some important social and moral questions. Indicate, by circling the appropriate number, the extent of your agreement or disagreement with the following statements."

The experimental subjects received the identical treatment except that the following paragraph was appended to the instructions: "In previous research this same questionnaire has been given to numbers of well-known and important people. Should you be interested in how these authorities felt, their response to each of the statements is indicated by an asterisk." Each of the

¹ The scale as finally presented by Kassirjian is scored in the opposite direction, high scores representing extreme inner-directedness.

items had an asterisk at one of the alternatives, randomly distributed between the moderately agree and the strongly agree positions such that the mean score for the fictitious "important people" was 6.5. This procedure was instituted to insure that the mean for the fictitious group would be clearly distinct from the expected mean score for the subjects of the experiment, which on the basis of previous research would be between three and four. (The highest score possible on an item is seven, which represents the most "authoritarian" response, hence our fictitious group were placed at the authoritarian end of the scale.)

D. RESULTS

In Table 1 are indicated in summary the results of our operations. The hypothesis that other-directed persons would be more influenced to conform in their views in the direction of the fictitious important people than the inner-directed seems to be substantially confirmed in these data. While both inner-directed and other-directed experimental groups are found to have expressed views more in the direction of the more authoritarian "important people" than the corresponding control groups, the difference between the experimental and control groups of the inner-directed category is (in terms of a *t*-test) too small to be statistically significant. On the other hand the difference between the other-directed groups is not only two and one-half times as large but quite statistically significant ($p < .01$, 2-tail). Moreover, the difference of .77 in means between the other-directed experimental and control groups is significantly greater than the difference between the inner-directed experimental and control groups ($p < .01$, 1-tail).

TABLE 1
MEAN F-SCALE FOR EXPERIMENTAL AND CONTROL SUBJECTS

	<i>Inner-directed</i>	<i>Other-directed</i>
Control	3.19 ($N = 28$)	3.93 ($N = 28$)
Experimental	3.50 ($N = 28$)	4.70 ($N = 23$)
Difference	.31 Not sig.	.77 Significant

These results are quite consonant with Reisman's concepts as well as our hypothesis and seem to us rather substantial in view of what might be looked upon as a very mild social-influence stimulus; namely, merely the information as to what certain important people believe. The source of influence was made deliberately vague so that a subject might fill in for "well-known and important people" whomever he thought appropriate. It is worthy of note that highly other-directed subjects will conform to the attitudes of persons whom

they feel fit this designation, even though there is no implication that they will be rewarded in any external way for doing so. There is here, then, not only an indication that the other-directed person looks to external sources for guidance, but the suggestion that conformity itself becomes for him a desirable goal. The process of conforming is apparently self-rewarding.

Although we have referred to the response here as conformity we recognize that some may wish to look upon our results as a demonstration of susceptibility to prestige suggestion or designate it in still some other way. As far as we can see the nomenclature does not especially matter.

One datum of our study is unexpected, namely that F-scale scores are to some extent related to directedness. Table 1 indicates that the control groups differ significantly here, with the other-directed scoring higher. This result is contrary to the findings of Kassarian as previously noted, and its explanation is hence by no means obvious. It cannot be accounted for as a result of a different type of sample, for both studies involved college students at UCLA. Perhaps further research will discover some explanation for the discrepant results. At present they are to us inexplicable.

E. SUMMARY

In order to test an hypothesis implied by the conceptualizations of David Riesman, namely that other-directed persons are more susceptible to social influence than are inner-directed persons, a scale designed to measure inner- and other-directedness was administered to 364 students in a beginning psychology class. Those who had scores equal to or less than minus one standard deviation were defined as the inner-directed group. Those who had scores equal to or greater than plus one standard deviation were defined as the other-directed group. Each group was then divided so that half the subjects in each were assigned to either the control or experimental conditions. There were, then, a total of four groups; an inner-directed experimental, an inner-directed control, an other-directed experimental, and an other-directed control. The subjects in the control condition were administered a shortened form of the F scale. The subjects in the experimental condition were administered the same scale, except that for each item the alternative chosen by "a number of well-known and important people" was designated. It was found that other-directed persons were more susceptible to the social influence of the reported opinions of others or to prestige suggestion from a vaguely defined source than were inner-directed persons. The result is interpreted as positive support for the hypothesis.

REFERENCES

1. ADORNO, T. W., FRENKEL-BRUNSWIK, E., LEVINSON, D. J., & SANFORD, R. N. The
• Authoritarian Personality. New York: Harper, 1950.
2. BELL, E. G. Inner-directed and other-directed attitudes. Unpublished Doctoral
dissertation, Yale University, 1955.
3. HOVLAND, C. I., & JANIS, I. L., Eds. Personality and Persuasibility. New Haven:
Yale Univ. Press, 1959.
4. KASSARJIAN, W. M. A Study of Riesman's theory of social character. Unpublished
Doctoral dissertation, University of California at Los Angeles, 1960.
5. ———. A Study of Riesman's theory of social character. *Sociometry*, in press.
6. LINTON, H., & GRAHAM, E. Personality correlates of persuasibility. In C. I. Hovland
& I. L. Janis (Eds.), *Personality and Persuasibility*. New Haven: Yale Univ.
Press, 1959.
7. RIESMAN, D. The Lonely Crowd. New Haven: Yale Univ. Press, 1950.

Department of Psychology

University of California

Los Angeles 24, California

BOOKS

Now that there is a special APA journal completely devoted to the publication of book reviews, it is no longer necessary that other journals emphasize such publication. It has always been our conviction that book reviews are a secondary order of publication unless they carry information that is as equally important as the book. However, the publication of book titles is a very important service, and we shall continue to render that service.

In any given issue of this journal, we may continue to publish one or more book reviews, but we do not consider such publication a major function of this journal. In line with this policy, we can no longer pay for such manuscripts.

BOOKS RECENTLY PUBLISHED

- ALLINSMITH, W., & GOETHALS, G. W. *The Role of Schools in Mental Health*. New York: Basic Books, 1962. Pp. 337.
- ALTSCHUL, A. *Aids to Psychology for Nurses*. London: Bailliere, Tindall & Cox, 1962. Pp. 308.
- AMES, L. B., & ILG, F. L. *Mosaic Patterns of American Children*. New York: Harper, 1962. Pp. 297.
- ARTISS, K. L. *Milieu Therapy in Schizophrenia*. New York: Grune & Stratton, 1962. Pp. 169.
- BACK, K. W. *Slums, Projects, and People: Social Psychological Problems of Relocation in Puerto Rico*. Durham: Duke Univ. Press, 1962. Pp. 123.
- BAKER, G. W., & CHAPMAN, D. W., Eds. *Man and Society in Disaster*. New York: Basic Books, 1962. Pp. 442.
- BALL, J. C. *Social Deviancy and Adolescent Personality*. Lexington: Univ. Kentucky Press, 1962. Pp. 119.
- BARRY, R., & WOLF, B. *An Epitaph for Vocational Guidance: Myths, Actualities, Implications*. New York: Teachers College, Columbia Univ., 1962. Pp. 241.
- BAUGHMAN, E. E., & WELSH, G. S. *Personality: A Behavioral Science*. Englewood Cliffs, N.J.: Prentice-Hall, 1962. Pp. 566.
- BERKOWITZ, L. *Aggression*. New York: McGraw-Hill, 1962. Pp. 361.
- BERNDT, R. M. *Excess and Restraint*. Chicago: Univ. Chicago Press, 1962. Pp. 474.
- BIER, W. C., Ed. *Problems in Addiction: Alcohol and Drug Addiction*. New York: Fordham Univ. Press, 1962. Pp. 247.
- BRANDEN, N. *Who is Ayn Rand?* New York: Random House, 1962. Pp. 239.
- BREHM, J. W., & COHEN, A. R. *Explorations in Cognitive Dissonance*. New York: Wiley, 1962. Pp. 334.
- BRICKLIN, B., PIOTROWSKI, Z. A., & WAGNER, E. E. *The Hand Test: A New Projective Test with Special Reference to the Prediction of Overt Aggressive Behavior*. Springfield, Ill.: Thomas, 1962. Pp. 100.
- BROAD, C. D. *Lectures on Psychical Research*. New York: Humanities Press, 1962. Pp. 450.
- BROMBERG, W. *The Nature of Psychotherapy: A Critique of the Psychotherapeutic Transaction*. New York: Grune & Stratton, 1962. Pp. 108.
- BROWN, R., GALANTER, E., HESS, E. H., & MANDLER, T. *New Directions in Psychology*. New York: Holt, Rinehart & Winston, 1962. Pp. 353.
- BULL, N. *The Body and Its Mind: An Introduction to Attitude Psychology*. New York: Las Americas Publishing Co., 1962. Pp. 99.

- BULLOUGH, G. *Mirror of Minds: Changing Psychological Beliefs in English Poetry*. Toronto: Univ. Toronto Press, 1962. Pp. 271.
- BURKE, K. A. *Grammar of Motives and a Rhetoric of Motives*. New York: Meridian Books, 1962. Pp. 868.
- CANDLAND, D. K., & CAMPBELL, J. F. *Exploring Behavior: An Introduction to Psychology*. New York: Basic Books, 1961. Pp. 179.
- CLIFT, V. A., ANDERSON, A. W., & HULLFISH, H. G., *Eds.* *Negro Education in America: Its Adequacy Problems, and Needs*. New York: Harper, 1962. Pp. 315.
- COSER, R. L. *Life in the Ward*. East Lansing: Michigan State Univ. Press, 1962. Pp. 182.
- CROW, L. D., & CROW, A., *Eds.* *Readings in Guidance: Principles, Practices, Organization, Administration*. New York: McKay, 1962. Pp. 626.
- DAVIS, F. J., FOSTER, H. H., JR., JEFFERY, C. R., & DAVIS, E. E. *Society and the Law: New Meanings for an Old Profession*. New York: Free Press of Glencoe, 1962. Pp. 488.
- DAVIS, K. *Human Relations at Work*. New York: McGraw-Hill, 1962. Pp. 642.
- DEUTSCH, J. A. *The Structural Basis of Behavior*. Chicago: Univ. Chicago Press, 1960. Pp. 186.
- DUFFY, E. *Activation and Behavior*. New York: Wiley, 1962. Pp. 384.
- DUVALL, E. M. *Family Development: Second Edition*. Philadelphia: Lippincott, 1962. Pp. 532.
- ELLIS, A. *The American Sexual Tragedy*. Rev. Ed. New York: Stuart, 1962. Pp. 320.
- ERIKSEN, C. W., *Ed.* *Behavior and Awareness: A Symposium of Research and Interpretation*. Durham: Duke Univ. Press, 1962. Pp. 158.
- ESTABROOKS, G. H., *Ed.* *Hypnosis: Current Problems*. New York: Harper & Row, 1962. Pp. 285.
- FEIBLEMAN, J. K. *Biosocial Factors in Mental Illness*. Springfield, Ill.: Thomas, 1962. Pp. 111.
- FEIGL, H., & MAXWELL, G., *Eds.* *Scientific Explanation, Space, and Time*, Vol. III. Minneapolis: Univ. Minnesota Press, 1962. Pp. 628.
- FLEMING, C. M. *Adolescence: Its Social Psychology*. New York: Grove Press, 1962. Pp. 262.
- FRIEDMAN, L. J. *Virgin Wives: A Study of Unconsummated Marriages*. Springfield, Ill.: Thomas, 1962. Pp. 161.
- GENDLIN, E. T. *Experiencing and the Creation of Meaning: A Philosophical Approach to the Subjective*. New York: Free Press of Glencoe, 1962. Pp. 302.
- GERBERICH, J. R., GREEN, H. A., & JORGENSEN, A. N. *Measurement and Evaluation in the Modern School*. New York: McKay, 1962. Pp. 622.
- GLASER, R., *Ed.* *Training Research and Education*. Pittsburgh: Univ. Pittsburgh Press, 1962. Pp. 596.
- GLICK, I. O., & LEVY, S. J. *Living with Television*. Chicago: Aldine, 1962. Pp. 262.
- GLUECK, S., & GLUECK, E. *Family Environment and Delinquency*. Boston: Houghton Mifflin, 1962. Pp. 328.
- GOODY, J. *Death, Property and the Ancestors*. Stanford: Stanford Univ. Press, 1962. Pp. 452.
- GREEN, E. J. *The Learning Process and Programmed Instruction*. New York: Holt, Rinehart & Winston, 1962. Pp. 228.
- HAEFLE, J. W. *Creativity and Innovation*. New York: Reinhold, 1962. Pp. 306.
- HARE, A. P. *Handbook of Small Group Research*. New York: Free Press of Glencoe, 1962. Pp. 512.
- HARRISON, J. E. *Epilegomena to the Study of Greek Religion and Themis*. New Hyde Park, N.Y.: University Books, 1962. Pp. 600.
- HERBERT, W. L., & JARVIS, F. V. *Dealing with Delinquents*. New York: Emerson Books, 1962. Pp. 208.
- HIRT, M., *Ed.* *Rorschach Science*. New York: Free Press of Glencoe, 1962. Pp. 438.
- HUGHES, E. J., *Ed.* *Education in World Perspective: The International Conference on World Educational Problems*. New York: Harper & Row, 1962. Pp. 201.

- JOHNSON, W. L., & HARDIN, C. A. *Content and Dynamics of Home Visits of Public Health Nurses: Part I.* New York: American Nurses' Foundation, 1962. Pp. 146.
- KOSSEN, W., & KUHLMAN, C., *Eds.* *Thought in the Young Child.* Lafayette, Ind.: Society for Research in Child Development, 1962. Pp. 176.
- KING, S. H. *Perception of Illness and Medical Practice.* New York: Russell Sage, 1962. Pp. 405.
- KIRK, S. A. *Educating Exceptional Children.* Boston: Houghton Mifflin, 1962. Pp. 413.
- KLOPFER, B., & DAVIDSON, H. H. *The Rorschach Technique: An Introductory Manual.* New York: Harcourt, Brace & World, 1962. Pp. 245.
- KLOPFER, P. H. *Behavioral Aspects of Ecology.* Englewood Cliffs, N.J.: Prentice-Hall, 1962. Pp. 166.
- KRAKOWSKI, A. J., & SANTORA, D. A., *Eds.* *Child Psychiatry and the General Practitioner.* Springfield, Ill.: Thomas, 1962. Pp. 190.
- LANE, R. E. *Political Ideology.* New York: Free Press of Glencoe, 1962. Pp. 509.
- MCGOWAN, J. F., & SCHMIDT, L. D. *Counseling: Readings in Theory and Practice.* New York: Holt, Rinehart & Winston, 1962. Pp. 623.
- MCNEMAR, Q. *Psychological Statistics: Third Edition.* New York: Wiley, 1962. Pp. 451.
- MADIGAN, M. E. *Psychology: Principles and Applications.* St. Louis: Mosby, 1962. Pp. 379.
- MARROW, A. J. *Changing Patterns of Prejudice.* Philadelphia: Chilton Books, 1962. Pp. 271.
- MARTIN, B. R. *Communicative Aids for the Adult Aphasic.* Springfield, Ill.: Thomas, 1962. Pp. 70.
- MEERLOO, J. A. M. *Suicide and Mass Suicide.* New York: Grune & Stratton, 1962. Pp. 153.
- MERENESS, D., & KARNOSH, L. J. *Essentials of Psychiatric Nursing.* St. Louis: Mosby, 1962. Pp. 312.
- MERLEAU-PONTY, M. *Phenomenology of Perception.* New York: Humanities Press, 1962. Pp. 466.
- MEYNARD, B. *The Nature of Ego: A Study.* New York: Philosophical Library, 1962. Pp. 211.
- MILLER, G. A. *Psychology.* New York: Harper & Row, 1962. Pp. 388.
- MUNN, N. E. *Introduction to Psychology.* Boston: Houghton Mifflin, 1962. Pp. 588.
- OSWALD, I. *Sleeping and Waking: Physiology and Psychology.* New York: American Elsevier, 1962. Pp. 232.
- PARKER, B. *My Language Is Me.* New York: Basic Books, 1962. Pp. 397.
- PARNES, S. J., & HARDING, H. F., *Eds.* *A Source Book for Creative Thinking.* New York: Scribner's, 1962. Pp. 393.
- PFEIFFER, J. *The Thinking Machine.* Philadelphia: Lippincott, 1962. Pp. 242.
- POSTMAN, L., *Ed.* *Psychology in the Making.* New York: Knopf, 1962. Pp. 785.
- POSTON, R. W. *Democracy Speaks Many Tongues.* New York: Harper, 1962. Pp. 206.
- POWDERMAKER, H. *Copper Town.* New York: Harper, 1962. Pp. 391.
- QUEVADO, F. *The Scavenger.* New York: Las Americas, 1962. Pp. 146.
- RADO, S. *Psychoanalysis of Behavior.* New York: Grune & Stratton, 1962. Pp. 196.
- REIK, T. *Jewish Wit.* New York: Gamut Press, 1962. Pp. 246.
- RIESE, H. *Heal the Hurt Child.* Chicago: Univ. Chicago Press, 1962. Pp. 615.
- SALZMAN, L. *Developments in Psychoanalysis.* New York: Grune & Stratton, 1962. Pp. 302.
- SARNOFF, I. *Personality Dynamics and Development.* New York: Wiley, 1962. Pp. 572.
- SARTORI, G. *Democratic Theory.* Detroit: Wayne State Univ. Press, 1962. Pp. 497.
- SCHAEFER, K. E., *Ed.* *Environmental Effects on Consciousness.* New York: Macmillan, 1962. Pp. 146.
- SCHNEIDER, N. *Hypnotism and You.* New York: Exposition Press, 1962. Pp. 77.
- SHERIF, M., *Ed.* *Intergroup Relations and Leadership.* New York: Wiley, 1962. Pp. 284.

- SIEGEL, B. J., *Ed.* Biennial Review of Anthropology, 1961. Stanford: Stanford Univ. Press, 1962. Pp. 338.
- SIEGEL, L. Industrial Psychology. Homewood, Ill.: Richard D. Irwin, 1962. Pp. 414.
- SIMMONS, J. R. The Quest for Ethics. New York: Philosophical Library, 1962. Pp. 64.
- SUDRE, R. Para-Psychology. New York: Grove Press, 1962. Pp. 412.
- TALLENT, N. Clinical Psychological Consultation. Englewood Cliffs, N.J.: Prentice-Hall, 1963. Pp. 298.
- WELLS, M. J. Brain and Behaviour in Cephalopods. Stanford: Stanford Univ. Press, 1962. Pp. 171.
- YABLONSKY, L. The Violent Gang. New York: Macmillan, 1962. Pp. 264.
- YATES, A. J. Frustration and Conflict. New York: Wiley, 1962. Pp. 236.